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PAPER TRADE JOURNAL

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PAPER TRADE JOURNAL

ESTABLISHED 1872

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY AND THE PIONEER PUBLICATION IN ITS FIELD

FIFTY-FIFTH YEAR

Published Every Thursday by the

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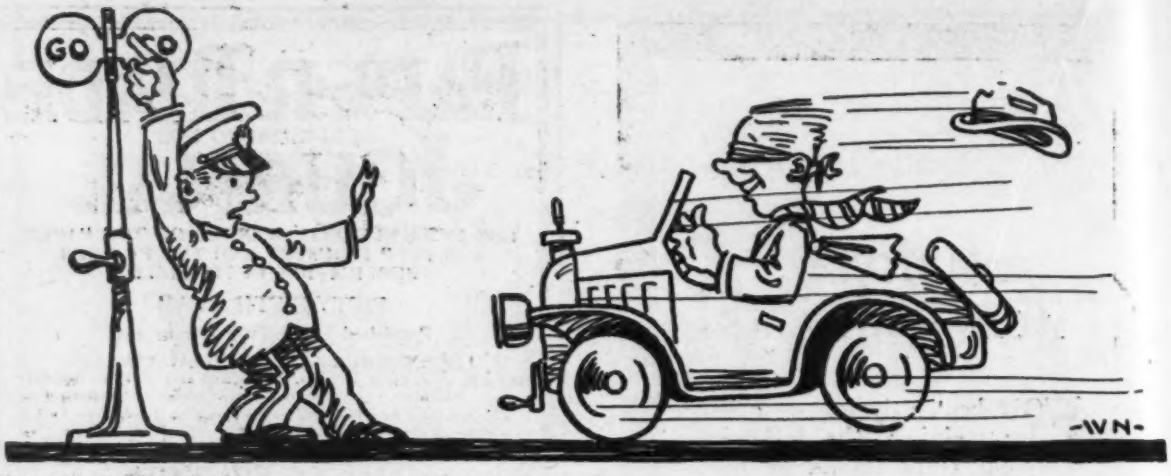

RIDING ALONG BLINDLY IS RISKY BUSINESS

And yet there are certain people who take greater chances than the one pictured above. Take for instance the paper mill owner, the converter, or the paper dealer who use obsolete and inefficient machinery in the manufacture of rolls of paper. They all are in a position to lose a volume of business, which due to past experience had been considered certain.

And not only is there a chance that old customers will trade with a competitor who is equipped to produce rolls of superior quality, but also the fact must be faced that to attract new buyers, the best is none too good.

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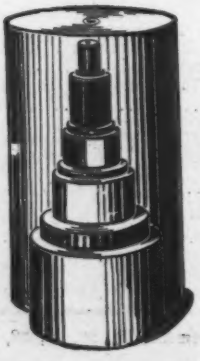

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With Which Is Combined

Vol. LXXXIII, No. 17 [redacted] Thursday, October 21, 1926

The Magazine of the Paper Industry

Three Pacific Coast Paper Mills Form Merger

Consolidation of Paper Interests Involves Oregon Pulp & Paper Co., of Salem, Ore.; Columbia River Paper Mills, of Vancouver, Wash., and California-Oregon Paper Mills, of Los Angeles, Cal.—Eighty Per Cent of Voting Power Has Approved Proposal of Board of Directors of Respective Companies

[FROM OUR REGULAR CORRESPONDENT]

PORTLAND, Ore., October 15, 1926.—A merger of paper interests in the west which was tentatively forecast a few months ago, has now been definitely approved by the directorates of the corporations concerned, according to statements given out October 10. The organizations included in the combine are the Oregon Pulp and Paper Company, Salem; the Columbia River Paper Mills, Vancouver, Wash., and the California-Oregon Paper Mills, Los Angeles. These three companies are dominated by F. W. Leadbetter, prominent paper mill operator with offices in Portland.

While letters are in the hands of all stockholders requesting their approval of the action, it is said that already 80 per cent of the voting power has approved the proposal of the board of directors of the respective companies.

Under terms of the merger it is proposed to exchange 6 per cent preferred stock in the new corporation to the extent of one and one-half times the holdings in the present mills, and in addition the stockholders will receive an amount in common stock of no par value in the new corporation equivalent to the common stock he now holds in one of the three corporations to be merged. It is pointed out by the directors that the holder receives virtually a preferred stock paying 9 per cent for his present holdings, and in addition as much common stock as he now owns. There will be no stock issued except on the terms outlined in the letter, according to statements attached to the documents.

The amount of outstanding capital stock involved in this merger is $5,008,950, apportioned as follows: Oregon Pulp and Paper Company, $1,239,000 common stock and $800,000 preferred; Columbia River Paper Mills, $1,429,000 common stock and $425,250 preferred; California-Oregon Paper Mills, $821,200 common stock and $294,500 preferred.

Mortgage bonds totalling $1,440,000 are outstanding in the merger as follows: Oregon Pulp and Paper Company, $1,000,000 of 6s; Columbia River Paper Mills, $200,000 of 5½s, and California-Oregon Paper Mills, $240,000 of 6½s.

The Lumbermen's Trust Company made the distribution of bonds to investors.

Forestry and Wood Using Industries in New York

"With farm lands going back to a non-productive state at the rate of 200,000 acres a year, and with forest fires still a serious menace to New York's forests, the Empire State must again become a great forest producing state if her pulp and paper and other wood using industries are to become permanent," said Dr. Hugh P. Baker, executive secretary of the American Paper and Pulp Association at the monthly dinner of the New York Purchasing Agents Association.

"Wood has been too cheap down through the years to justify expenditure of money by business men and the industries for the growing of trees on a commercial basis. The time has now been reached, however, when forestry has become a vital economic problem in that the cost of wood for our industries has passed the cost of production. The state has an investment in every acre of land, good and bad, and an idle acre is as much an economic loss as an idle man. Every acre of land fit for the growing of agricultural crops should be so used. However, with ten million acres in the state not now reasonably productive, from a forestry standpoint, there is need of using agricultural land of any kind for forestry purposes.

In 1850 New York led all of the states in the production of lumber. In 1925 New York used more lumber for packing cases alone than was produced in the state, and we ranked 23rd among the lumber producing states. New York now imports 85% of her wood needs and pays a tremendous penalty in the way of millions of dollars for freight on lumber which could be produced on her own forest lands.

"New York is one of the great pulp and paper producing states of the Union with 244 active pulp and paper mills, producing in 1925 approximately 1,171,000 tons of paper. However, only a small part of the vast amount of news print paper used by the great dailies of this city is produced in New York mills. Cover New York's forest lands now unproductive with a continuously productive forest and the state should become practically independent of outside sources for raw materials for the paper industry.

T. B. Armstrong Dies at Salem, Ore.

[FROM OUR REGULAR CORRESPONDENT]

PORTLAND, Ore., October 16, 1926.—Thomas B. Armstrong, general Superintendent of the Oregon Pulp and Paper Company, Salem, died in the hospital in that city on October 6 following an operation performed a few days before. He was 54 years of age.

Mr. Armstrong came to Salem three years ago from Niagara Falls, N. Y., at which time the plant of the Oregon Pulp and Paper Company was opened. Surviving the deceased are his widow and four sons.

Following funeral services held Saturday, October 9, the body was taken to De Pere, Wis., for burial.

Demand for Paper Fairly Good in Philadelphia

Advance Campaigning For Christmas Holiday Orders Bringing Satisfactory Results—Orders For Fine Papers Well Maintained at Steady Prices—Business in Coarse Paper Market Broadening—Improvement Noticed in Paper Board Industry

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, Pa., October 18, 1926.—With the last quarter of the year's business cycle bearing out the forecasted betterment for the paper industry and the local trade sharing in the improvement on a generous scale, the dealers are anticipating an excellent record with the closing of accounts for the current year. As the autumn days grow and the distribution of paper extends throughout the States and the city, there is every reason for this optimistic attitude for the year of 1926. The past week with its many diversions coincident to the annual convention of the American Legion and the presence of more than 250,000 war veterans in the city, was not as active as the preceding. It was not because orders were lacking, but was due to the difficulty of finding customers at their desks, the Legion program calling many to participation in the social and entertainment features. However, there was enough demand to keep shipping departments fairly busy meeting urgent needs in small lot purchases.

Holiday Stocking Occupies Dealers' Attention

As the autumn advances the needs of the holidays are now occupying the attention of the dealers. Many novelties and staple paper wares are being added to the list of the coarse paper houses, and, among the specialities of fancy writings, wrappings and announcements for the fine paper grades. Imported and domestic goods for a Christmas design or colors adapted for the holiday are appearing in various lines of paper stocks, with many novelties and fancy containers among the wares. Dealers have begun the advance campaigning for holiday orders with gratifying results.

Fine Papers Firmer

Following a reduction in prices among the local manufacturers of book papers and other grades of fine papers consumed by the printing and publishing trades, there has been a steady price tendency since the last announced cut in the values of sulphite bonds, made in the latter part of September. Orders, while not as plentiful as they were a few weeks ago, have been fairly well maintained, and are confined to hand to mouth type of purchases, with a notable increase in the scope of small lot buying. It is expected that this type of purchase will bulk considerably above anticipation when the final month's accounts are summed up.

Coarse Papers Broaden

In anticipation of the coming holidays, the coarse paper division of the Quaker City trade has been broadening to include many lines of holiday requirements in wrappings, containers, bags, glassine specialties for the food and confectionery industries, and for many specialties that will provide fancy packings or bundles for the Christmas gift giving season. Several new designs in printed wrappings and containers have been added to stocks in the warehouses and these are now being shown on the road by the traveling representatives. Orders have been forthcoming and present advance buying indicates that a brisk holiday business is looked for when the season is in full swing. There is a steady order list for the staple lines of wrappings, krafts, and other coarse grades, and the volume of purchases has been proportionately larger as holiday requirements have been placed in the hands of the papers dealers for future deliveries or for immediate shipments.

Bag Situation Analyzed

Dealers trading in bags have begun to analyze the bag situation as they view it from the present increased values which have taken place at stated periods within the past three months. There has been a total increase of 15 per cent in the quotations in bags within that period of time and few orders now may be had at the old values. It is expected that independent bag manufacturers in the local industry will soon become serious competitors for the bag business in the Quaker City and Keystone State trade. With no freight considerations to the dealers and with plenty of paper purchased at the low prices of the summer months, the Philadelphia bag manufacturers are believed to be in an advantageous position for competing with the larger corporations recently involved in the revision of prices to higher levels. There already has been manifested a tendency on the part of the local bag manufacturers to feel out the market with prices maintained on a par with the larger competitors shipping from long distance points. Their efforts have been successful, and many orders have been landed at fair profits and stabilized prices. The bag situation is believed to be in the best position experienced within recent years, and has advanced to a point where manufacturers and dealers now are able to market their products at reasonable profits after suffering heavy losses during the keeness of price inroads of many months duration. The only advance which has been made within the current month was that of the Union Bag and Paper Corporation which advanced slightly the cost of odd bags, those of grocery grades remaining stationary at the prices to which they were raised in September.

Paper Board Situation Shows Improvement

As the seasonal demand for paper boxes grows, the paper situation is showing improvement. There has been a steadier tone to the board market, with the advanced prices of the past ten days holding. Despite the firming of the board market, there has been considerable tonnage of odd sizes offered by one of the leading mills to the paper trade and to its consumers in the allied industries.

Paper Stock Continues in Demand

Both rags and paper stock have continued to be in demand among the out of town mills, with higher prices prevailing. The most active of the rag stocks are those grades consumed in the production of roofing papers, and the cheaper old rags of domestic accumulations. Ropes are revised to lower quotations, while bagging grades have been slightly advanced.

Wholesale Waste Merchants in Fall Meeting

The first of the Fall series of meetings of the Phladelphia Wholesale Waste Merchants Association, held at the Hotel Lorraine, Broad and Fairmont Avenue, last Thursday, was devoted to the discussion of the reduction on freight rates to the Western mills and the co-operation of the local dealers with their brethren in New York in bringing this about. President Thomas F. Kenny, of the association, a member of the International Trading Company, took up the question of rate reduction at the dinner held in conjunction with the session. It was decided that the local association should co-operate with the New York and Boston Waste Trade Associations in taking up this matter with the railroads, in an effort to bring about the reduced rates on the shipment of rags and paper stock. A resolution was adopted extending the services of the Philadelphia dealers to the presidents of the out of town associations and a committee is to be appointed in the local body for handling the matter of freight reductions.

There were 25 waste dealers present and they joined in the resolution adopted by the membership for the extension of sympathy

to the families of the late Daniel I. Murphy, and Maurice Matson, of Matson Brothers, whose death took place in the summer months. Secretary William J. McGarity was assigned to the committee to represent the association in the extension of the condolence of the members.

Paper Trade Hears of Convention Activities

Reports of activities at the semi-annual convention of the National Paper Trade Association were laid before the local distributors of the Philadelphia Association at the meeting of the fine paper group and the coarse division held in the week, with two days set aside for the purpose of discussing the events that were scheduled in the national program, and of interest to the respective branches of the industry. On Wednesday the coarse paper group met at the Bourse Restaurant, when Charles A. Wilder, who represented the division at the convention as delegate from the association read his report of the activities of the National body. George Randell, of the Riegel Company, was chairman of the occasion.

Fine paper dealers were given an account of the national convention and its program of interest to the fine division in particular, when A. Richard Hartung, of A. Hartung, Inc., reported at the Thursday luncheon in the Bourse on the activities of that group, as the Philadelphia delegate. With President David Lindsay, Jr., of the Quaker City Association presiding, and Mr. Hartung as chairman, the fine paper dealers were given a full detailed report of the transactions of the national body and then were informed by the chief executive of the local organization of the appointment of Leon Beck, of the Charles Beck Paper Company, to the Trades Relations Committee as successor to the late James McNutt, whose death took place two months ago.

R. C. Osburn Removed to New Offices

With the removal of R. C. Osburn to his new home in the Franklin Trust Building, there will follow a reorganiztaion of the business enterprises in which he is interested. The Osburn enterprises consist of the R. C. Osburn Paper Company and the Government Sales Company, the former devoted to the sale of paper to the trade, while the latter has been given over to the sale of paper in large contract form. It is within the past year that the Osburn Company has been organized and conducted as two companies. The proprietor has for many years been identified with the Philadelphia paper trade as mill representative, and as a former associate of the Garrett-Buchanan Company. The removal to the new home was made during the week, the old offices having for years been located in the Bourse.

E. C. Betner Bag Co. Formed

A new manufacturing concern has been organized for the purpose of producing a line of coffee bags and glassine specialties in bags at Devon, near Philadelphia, by E. C. Betner, formerly vice president of the Thomas M. Royal Company, of this city. The new concern will be known as the E. C. Betner Bag Company, and is now installing its equipment in the plant. There are 10 initial machines being erected for the manufacture of the various bags to be specially manufactured. The new plant is expected to be in operation by November. The head of the firm resigned from the Royal Company a little over a year ago.

John Costello Joins Hoffman Corr Co.

John Costello, who for the past four years has been manager of the Penn Paper and Stock Company, is now associated with the Philadelphia branch of the Hoffman Corr Company, paper stock dealers, with main offices in New York. Mr. Costello will assume the duties of manager of the Philadelphia branch at 312 Market street.

Union Bag and Paper Corp. Removes Credit Division

The local offices of the Union Bag and Paper Corporation have been assigned exclusively to the sales division for the Philadelphia territory, the credit department having been removed to the New York headquarters. Miss E. W. Cook, who has been credit manager of the Quaker City offices, will remain there, associated with the sales division under the management of C. E. Hanson.

Wilcox, Walter, Furlong Co. Imports Bible Papers

While W. S. Wilcox, of the Wilcox, Walter, Furlong Company, 17 S. 6th street made the rounds of the European resorts and sight seeing places during the past summer, he included several foreign paper manufacturing centers in his itinerary. While on a visit to an English manufacturer, he made arrangements for the importation of high grade bible papers in the light weights of 25 x 38—30, which is to be imported for the firm's own customers' special requirements. The tour included a six weeks sojourn among the leading countries of Europe, during the month of August and part of September.

French Fourdrinier Wires For Western Mills

As the American representative of the French manufacturers of Fourdrinier Wires, the Philadelphia house of Daniel I. Murphy, Inc., with offices in the Brown Building, 4th and Chestnut street, has disposed of considerable of these mill accessories of the Western manufacturers of papers. Williard Heisley, who covers the mills of the nation with the French Fourdrinier Wires for the Murphy company, has just returned from a tour of the Western territory, where he disposed of a large number of these imported wires to the producers.

Wilder Bros. Increase Shipping Facilities

An additional truck service has been added to the shipping department of Wilder Bros., 12th and Brown streets, providing two additional ton trucks of Ford make. Charles Wilder, of the firm, has returned from a trip to the semi-annual convention of the National Associaion where he was representative of the Philadelphia organization, coarse paper division.

Philadelphians at the Convention

Other Philadelphians attending the national gathering were T. H. B. Swythe, of the J. L. N. Smythe Company; L. T. Supple, of the Whiting Patterson Company, and A. Richard Hartung, of A. Hartung, Inc.

Hinde & Dauch Co. To Build Board Mill

SANDUSKY, Ohio, October 18, 1926.—Through a deal closed by President Sidney Frohman and ratified by the board of directors, the Hinde & Dauch Company, of Sandusky, has purchased the Kansas City Fiber Box Company and the Kansas City Packing Case Company, both of Kansas City, separately operated heretofore, but owned by the same interests.

The plants and business of the Kansas City industries are to be taken over by the big Sandusky corporation on November 1. The Hinde & Dauch Company will begin construction at an early date on ground adjoining these factories of a large new mill to manufacture fiber boards. Purchase of the two plants and construction of a new mill involves about three million dollars.

With these new facilities at Kansas City, the Sandusky concern will have 19 plants, operated in the following cities:

Three in Sandusky, two in Muncie, two in Ft. Madison, Ia., one in Cleveland, one in Watertown, N. Y., one in Delphos, three in Gloucester, N. J., one in Philadelphia, two in Toronto, Ont., one in Trenton, Ont., and two in Kansas City. The plant at Trenton, Ont., is now under course of construction and will be placed in operation about the first of the coming year. This plant will be one of the most modern paper plants in the world.

Northwest Pulp & Paper Co. Incorporates

PORTLAND, Ore., October 16, 1926.—The Northwest Pulp and Paper Company has been incorporated by A. V. Allen, C. B. Lee and Otto Ronna of Astoria, Oregon, to deal in pulp and paper products. The capital consists of 2,000 shares class A common stock, $10 each; 100 shares class B common stock, no par value; 50 shares preferred stock, $100, or a total of about $35,000 capitalization.

Chaleur Bay Mills Co. Assets Bought by I. P. Co.

Purchase Price Reported To Be $1,800,000, of Which $1,000,000 Was Paid in Cash—Erection of Pulp Mill in Neighborhood of Acquired Properties Contemplated—Vast Timber Limits and Real Estate Secured—Champoux Co. To Develop Water Power at Disraeli

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., October 18, 1926.—The International Paper Company has just consummated another big deal in Quebec Province, for according to an official statement of the Chaleur Bay Mills Company, it has purchased the greater part of the assets of that company. It is understood that the price is $1,800,000, of which $1,000,000 has been paid in cash.

The Chaleur Bay Mills Company which has been operating for 23 years was controlled by the Champoux Brothers, lately of Disraeli, Que. Among the property owned by the company is 465 square miles of timber limits, as well as real estate of all kinds, and a saw mill with a capacity of one million feet of lumber weekly. It also owns a chain of stores, and practically the entire town of Ste. Anne de Restigouche, which comprises about 60 houses. The office of the company has been in Sherbrooke for many years past. It is understood that the International Paper Company intends building a pulp mill in the neighborhood of the property they have acquired, and that the Champoux Company, which controlled the Chaleur Bay Mills Company, will develop the water power in Disraeli.

Montreal Firm Buys Mattagami

I. W. Killam, president of the Royal Securities Corporation, Montreal, has purchased the assets of the Mattagami Pulp and Paper Company for $7,250,000. The property was offered for auction in Toronto, and Mr. Killam's bid, which was at least equal to the reserve price, was the only one made.

Big Claim For Forest Insurance

Price Bros. & Co., of Quebec, has brought an action for $400,000 damages against C. E. Heath, one of the members of the London insurance firm of Lloyds. The actual trial of the case is taking place in London, Eng., but by means of a rogatory commission, some of the evidence in the suit is to be taken in Quebec.

Price Brothers & Company in 1914 took out a policy from the defendent, Heath, for protection of some of their Sanguenay timber limits. This policy was renewed in 1915. In the latter year fire destroyed sixty-four square miles of the company's limits. The defendent refused to pay for the fire loss, estimated at $400,000 and the present suit is the result of his refusal. It is expected that about forty expert witnesses will be heard in the case.

Price Bros.' Extensions

It is expected that the two news print machines which Price Bros. & Co., are adding to their plant at River Bend, Que., will be in operation early in 1928. This will bring the total capacity of the Kenogami and River Bend mills to about 925 tons daily, and with this the present programme of the company will be completed.

Water Conservation in Quebec

O. Lefebvre, chief engineer of the Quebec Streams Commission, gave some interesting particulars relating to the work of the commission at a meeting of the Lions Club in Montreal. He said that work for the regulation of the flow of rivers had already been carried by the Provincial Government on the St. Maurice river, St. Francis river, St. Anne de Beaupre river, Metis river and at Lake Kenogami. It is the plan of the commission to employ similar methods on other smaller rivers in the province, with the object of supplying more power as it is required.

The source of power on the St. Maurice river is now derived from water stored behind a dam near its source, which was originally in a series of inter-connected lakes. Now, however, a large lake and reservoir have been formed, the area of which is 3,600 square miles, and the water supply of which is 160 billion cubic feet. This is twice the size of the Assouan reservoir on the Nile, and can be considered the largest in the world. The flow from this reservoir is 6,000 cubic feet per second, as a minimum, while the maximum objective is set at 12,000 cubic feet per second. There is now available about 500,000 h.p. in that river, and it is hoped to increase this to 1,250,000 h.p., making the St. Maurice one of the most valuable rivers, for power purposes, in the world.

An additional benefit derived from this damming of rivers is that which accrues to the log drivers. A better, surer and safer method of getting logs from the upper reaches of the rivers to the mills is now assured. At first it was difficult to convince the log drivers that they were to receive any benefit, and to persuade them to pay for this advantage, but it is now realized that there are many advantages to be derived from the new method. Up to the present, $8,500,000 has been spent by the commission for structural works. This sum will be returned to the public coffers by making charges to the various companies benefitting from them, these levies being sufficient to cover interest on capital expended, and to build up a sinking fund, which will, in 30 years, be sufficient to redeem the entire amount paid out for the initial construction and the cost of maintenance.

It was calculated, he said that the Province of Quebec could supply 7,000,000 h.p. on a low water basis, and 11,640,000 h.p. on the average level over six months.

Bankers Visit Power and Paper Plants

Over 100 delegates who have been in attendance at the 15th annual covention of the Investment Bankers Association of America, held in Quebec, made a tour of the St. Lawrence Valley and surrounding territory during the week end. The delegates, who came from all parts of the United States and Canada, inspected the International Paper plant at Three Rivers, the Lawrentide paper and power plant at Grand Mere, the Shawinigan power plant at Shawinigan Falls, the Canada Carbide and Aluminum Company's plant at Shawinigan Falls, and the St. Maurice power plant at La Gabelle.

J. H. MacLeod Goes With Hinde & Dauch

[FROM OUR REGULAR CORRESPONDENT]

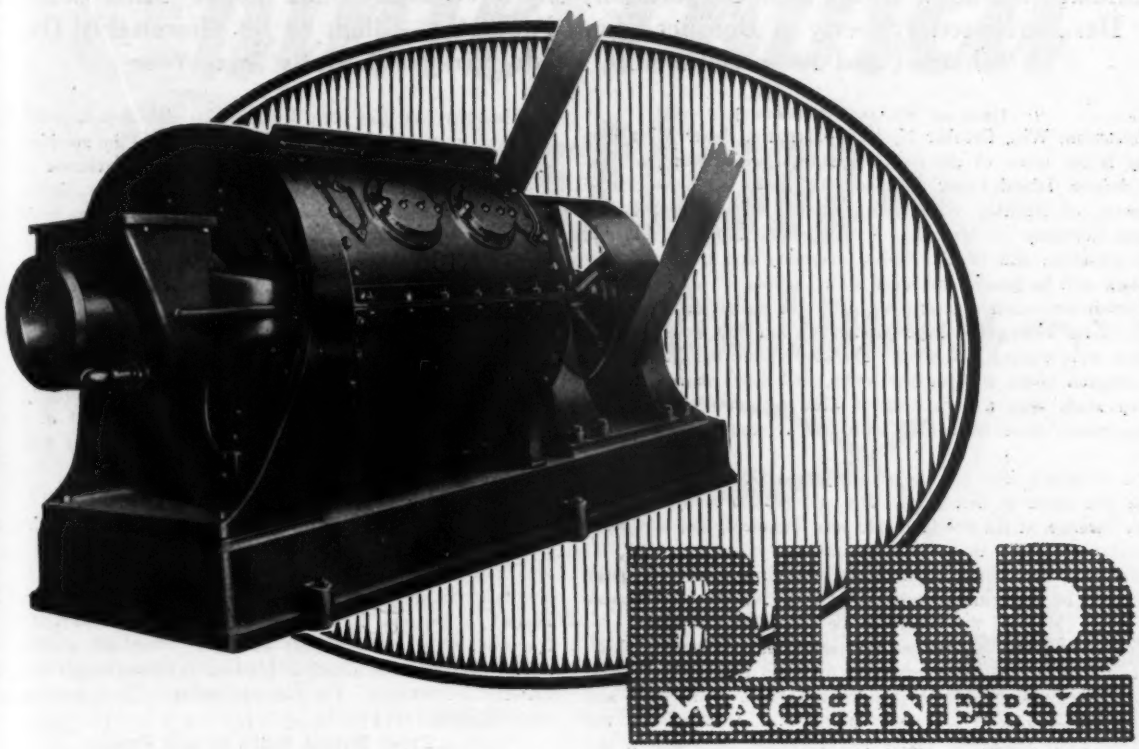
CLEVELAND, Ohio, October, 18, 1926.—J. H. Mac Leod, Cleveland bond expert has been made vice president of the Hinde & Dauch Paper Company with head quarters at Sandusky. He will have charge of the company's financial affairs. He was vice president of George W. York & Co., Inc., bankers and was previous to that connection with Otis & Co.

Sidney Frohman, president of the Hinde & Dauch Company says that his company's recent acquisition of the properties of the Kansas City Fibre Box Company made extension of the company's executive staff necessary.

Acquires Rights to Murphy Junk Remover

The Griley-Unkle Engineering Company of Fort Wayne, Ind., has acquired the patents and selling rights of the Murphy Junk Remover, invented by Lloyd T. Murphy. This is a machine designed to remove and keep beaters constantly free and clear of junk matter. It is especially adaptable for use in board mills and installations thus far made are proving its value in performing the work designated.

First Choice for the finest New Mills



The Bird Pulp Screen is chosen for the great majority of the new pulp mills now being erected in this country and Canada. Its remarkable capacity for producing clean, strong stock, its economy of power, and the simplified screen room layout it makes possible have made it the logical choice.

And alert pulp makers are realizing that these same important advantages enable them to effect large savings by replacing their old type screens with Bird Pulp Screens.

Will you tell us your screening requirements so that we may send you estimates and layouts showing what you can save with the Bird Pulp Screen?

As good for pulp as the Bird Screen is for paper

BIRD MACHINE COMPANY

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331

The Bird Pulp Screen

Menasha Paper Mills to Manufacture Straw Board

Norman E. Brokaw Heads New Corporation, Chartered as Menasha Paper Mills Co., Which Has Purchased Property of Defunct Island Paper Co.—Plant to be Thoroughly Overhauled and Improved Before Production Starts Early Next Year

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., October 15, 1926.—Menasha Paper Mills Company is the name of the new corporation which has purchased the defunct Island Paper Company, Menasha, Wis. Norman E. Brokaw, of Neenah, Wis., who is associated with the Central Paper Company of Menasha, is the president, H. A. Phoenix, vice president, and W. H. Nelson, secretary and treasurer. Mr. Brokaw will be general manager also.

Formal organization took place after the circuit court at Oshkosh, Wis., had granted permission to sell the property, and officers were elected this week. The corporation has 3,000 shares of common stock without par value, and 1,500 shares of preferred stock with a par value of $100 each. The articles of incorporation have been filed with the Wisconsin secretary of state.

Mr. Brokaw's offer for the property was $75,000 and the purchase was made at that price. He paid $25,000 to the receiver, Hugh Strange, at the time the sale was imminent, and was given a short time longer to pay the remainder.

Nine point strawboard, used extensively for making corrugated paper, will be the principal product of manufacture, Mr. Brokaw announces. Most of the straw will be purchased locally.

Production probably will not be started until January 1, 1927, due to the desire of the company to overhaul the plant. Alterations costing about $100,000 are contemplated, it is said, and some of these already are under way. It is expected that the force of men, numbering about 100, formerly employed in the mill, will again be given work.

The Island Paper Company became involved in November of last year and finally was ordered placed in the hands of a receiver by Judge Fred Beglinger of the Oshkosh circuit court. The plant closed down a year ago and while there have been several bidders in the field for it, Mr. Brokaw seemed to hold a vantage point. One of the prospective purchasers was the stockholders of the Valley Paper Mills, Nenah, Wis. Officers of this company contemplated taking over this mill instead of proceeding with its plans to build a new one.

Kimberly-Clark Safety Contest

Two mills of the Kimberly-Clark Company of Neenah, Wis., embarked Friday, October 15, on another big safety contest, marked perhaps with much more rivalry than any previous attempt. The mills at Kimberly and Niagara, Wis., are the contenders for an engraved shield which will be presented by the company. These are the two largest plants in the Kimberly-Clark group and are about evenly matched in numbers. This contest is to run until December 31, and the mill having the smallest number of accidents in that period will be awarded the trophy.

At both Kimberly and Niagara vast demonstrations, including a street parade, were held Friday to open the contest and stimulate interest. The Kimberly workmen turned out en masse for a torchlight procession headed by the Cecilian band. The American Legion and 450 school children were also in the line of march.

Following the parade, the villagers all assembled at the Kimberly-Clark clubhouse at Kimberly, and heard an address by H. G. Boon, manager of the mill, on the subject of safety. An oldtime harvest dance was held as the evening's closing event. Every school pupil who marched in the parade was given a free ticket to a motion picture show planned for a later date at the clubhouse.

Kimberly mill has been divided into nine departments for the purpose of conducting the contest. These are the sulphite, power, maintenance, office force, book mill, plant, warehouse and construction groups. Each will be assigned one week, during which it is to promote safety interest. H. M. Ostertag, maintenance engineer, is general chairman of the contest.

Niagara mill once held the world's record as the safest paper mill but lost it to Kimberly in 1925. The former has high hopes of staging a comeback.

National Fire Prevention Work

National Fire Prevention work was observed by the Foreman's Club of the Kimberly-Clark Company mill at Kimberly, Wis., with a meeting at which George P. McGillan, chief of the fire department at Appleton, Wis., was the speaker. The mill safety council also was present.

New Bleaching Plant for Ashland

Work has been started by the Lake Superior Paper Company, Ashland, Wis., on a $50,000 bleaching plant, according to the announcement of Rudolph Meyer, general manager. This step was taken so the company can produce its own bleached sulphite instead of shipping it in from Appleton, Wis., and Canada, as formerly. The company has also just completed a warehouse costing $3,000. Its principal product is tissue paper and thin varieties for waxing. The roll of employees is now nearing the hundred mark.

Paper Making Night Schools Popular

Quite a number of paper mill workers have enrolled in the paper making classes which have been started in the night schools of Appleton, Neenah, Menasha and Kaukauna, Wis. The courses are starting off with success and paper mill executives are serving as teachers. Earl M. McCourt, head chemist of the Interlake Pulp and Paper Company, Appleton, Wis., is teaching the course in characteristics and sources of wood pulp. Another instructor is Fred W. Bentzen, of Neenah, Wis., chemist of the Kimberly-Clark Company, whose course is paper mill chemistry. At Neenah, the principal interest is in a study of the Fourdrinier machine.

Mayor G. W. Mead Honored

Mayor George W. Mead, president of the Consolidated Water Power and Paper Company, Wisconsin Rapids, Wis., was honored several days ago with election as vice president of the Wisconsin Conference of Social Work. Mr. Mead's interest in community affairs and welfare work in industry led to his choice.

Fund Donated for Research Work

The Board of Regents of the University of Wisconsin, at Madison, Wis., has accepted a fund of $1,500 from the Northwest Paper Company, of Cloquet, Minn. The money is to be used to establish a fellowship in chemical engineering for pulp and paper research. George Brabender, of Peshtigo, Wis., a graduate of the University of Wisconsin in 1925, will conduct the work under the direction of Professor O. L. Kowalke, of the department of chemical engineering. The fellowship is to be continued indefinitely by the paper company if the preliminary work proves of sufficient merit.

Paper Warehouse Destroyed

Miller Paper Stock Company, of Green Bay, Wis., formerly of Menasha, Wis., suffered a loss of $37,000 when fire destroyed its

(*Continued on page 62*)

Uninterrupted Operation~ demands Modern Machinery

UTILIZING your unproductive hours can often mean the turning of losses into profits.

"Time out for repairs" cost the industries of our country about two billion dollars last year. If the government experts' ascertained average holds good in your plant, (and it does if you are operating with obsolete equipment) then you are paying out 20% of your wages for idle time! Think of the unproductive hours!

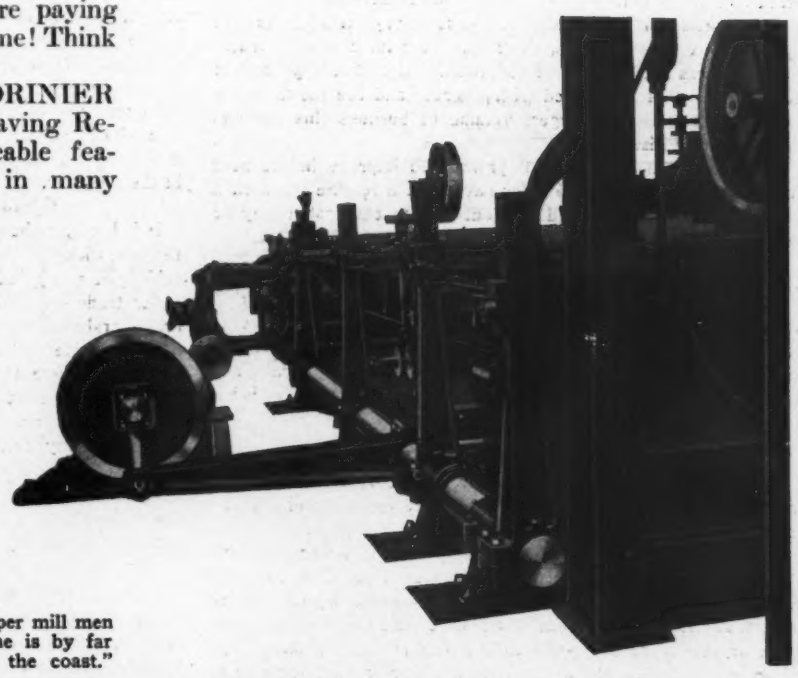
THE NEW BELOIT FOURDRINIER with its modern time and labor-saving Removable, Adjustable and Shakeable features, is eliminating this waste in many mills today; is eliminating unproductive hours and utilizing time, men and machinery to its fullest capacity. It can do the same in your mill, for there's nothing in papermaking history that can compare with the remarkable records of production secured with the "Beloit."

Twenty-three orders and eight re-orders tell the story.

Won't you let us present the facts for your consideration?

From the Coast

"It is generally conceded by all the best paper mill men on the Coast here that our Beloit machine is by far superior to any other paper machine on the coast."



No. 435

Showing ba'ance wheel and connecting rod on new "Beloit" Shake. Note the heavy, sturdy construction of shaft bearing and upright shake posts. Also note that shake is applied at four places, but that it may be detached from any one or all of the four.

The NEW BELOIT FOURDRINIER

FOUNDED 1858 BELOIT IRON WORKS PAPER MACH'Y BELOIT WIS.

BELOIT IRON WORKS Beloit, Wisconsin, U. S. A.

Los Angeles Paper Demand Holds Up Well

Reports of a Good Volume of Business Come From Nearly Every Branch of the Trade With the Exception of Fruit Wrappers For Which the Demand Is Over For the Season—J. A. Kelly, Sales Manager of Sierra Paper Co., Conducts School For Paper Salesmen

LOS ANGELES, Cal., October 15, 1926.—The paper trade is keeping in good shape as far as volume is concerned. Practically every paper jobber and broker in Los Angeles is having about all he can do to take care of the present demand, which, in many instances is insistant. Apparently business in nearly all lines is picking up out here, if one may judge from the effect upon the paper industry, because all along the line the demand, as indicated above, is considerably above the normal for this season of the year.

The reports of good volume come from nearly every department of the industry, with the possible exception of the fruit wrapper paper concerns. For these concerns the rush is practically over for the time being, but is expected to pick up again soon for the fall and winter demand. Some of the printers of fruit wrappers are well stocked up on their paper but the mills expect to be called upon in the near future to make heavy deliveries for future needs.

Busy With Holiday Work

The printing trades, due in all probability to the increased activity of the merchants in their preparations for the near by holiday trade, are experiencing a revival of activity which is in sharp contrast with the somewhat apathetic conditions among this branch of paper consumers for the summer season.

The approach of the holiday season is having an effect as well upon the box manufacturers, all of whom are filled up with orders for Christmas boxes of all descriptions. In fact, the paper box manufacturers all are rushed with business and are faced with a likelihood of doing the largest volume of business this fall and winter in their history.

Collections still are slow but promise to improve in the near future. Slow collections however have been a feature for such a long time with the paper industry out here that almost it may be said to have become a normal condition.

H. E. Fitch Reports Satisfactory Trade

H. E. Fitch, 923 East Third street, who represents the Scott Paper Company, of Chester, Pa., says he has been having a very satisfactory trade during the last few months. Mr. Fitch has a number of very desirable connections in Southern California, not a few of which are car load buyers, hence he is well satisfied with conditions as he finds them.

Good Demand For Drinking Cups

The Individual Sanitary Service, 757 East Ninth street, distributors for the Individual Drinking Cup Company, and jobbing representatives of a long line of Eastern made paper products, says present trade is particularly good. As an instance of how climatic conditions can effect even the paper trade, C. J. Fry, the manager of the concern, says that the unusually high temperatures which have been prevailing on the Pacific Coast for the last week or ten days have precipated a demand for drinking cups which is unprecedented for this time of the year. The first week in October, for instance, has been abnormally warm, the mercury running up nearly to the 100 mark two or three times. This has engendered a degree of thirst which has all but swamped the paper cup concerns to satisfy.

E. J. Fry Dead

E. J. Fry, the senior member of the Individual Sanitary Service, died at his home at 1318 North Catalina street, Pasadena, on September 21, following an illness of about two months duration. He is survived by his wife and three children.

The business of the company will be continued under the management of a surviving brother, C. J. Fry.

The deceased had been engaged in the dringing cup and paper specialty business in Los Angeles for the last fifteen years and was well and favorably known in the business world.

California Lace Box Co. Incorporates

The California Lace Paper Box Company, just has been incorporated at Los Angeles for $250,000. It is the intention of the company to engage in the manufacture of lace and set up paper boxes. Incorporators are: H. M. Johns, P. J. Moseley, E. P. Hewett and M. F. Ham.

West Virginia's New Branch Busy

George L. Rodier, Pacific Coast representative of the West Virginia Pulp and Paper Company, just has been in Los Angeles where he met his southern California road representatives for a survey of the trade prospects in this section of the state. The company maintains a Los Angeles agency at 122 East Seventh street, with Roy A. Smith in charge.

The West Virginia Pulp and Paper Company is among recent comers in the paper industry on the Pacific Coast, as the San Francisco branch, where a warehouse stock of paper is carried at all times, was established within the last year. The Los Angeles agency is still more recent.

The company sells publications, publishers and big printing establishments only and is actually a far western branch of the parent concern. Mr. Rodier says the company is making very satisfactory progress in getting into the paper trade in this section of the country and predicts that it is destined to be a very live factor in the development of the high grade paper business in the far west.

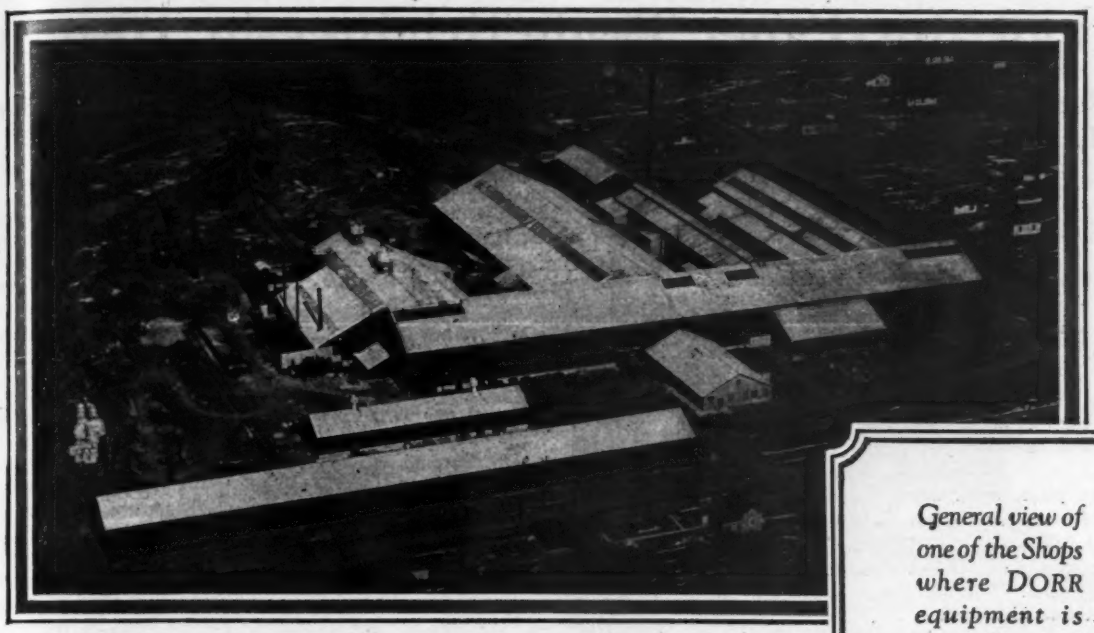
Operations of Gyp Paper Concerns

It is hardly to be expected that the paper industry should escape the operations of the gyp paper concerns as the gyp inflicts himself upon every industry in this part of the country, hence the paper trade can claim no immunity from his operations. There are several such concerns in Los Angeles and to them is due much of the trouble as respects prices which affects the industry here. Apparently these concerns can thrive on a closer margin of profit than more reputable concerns require for their operations, for they continue to exist and to trouble the legitimate trade all of the time and apparently there is no known means for their abatement. Maybe they are like the fleas on a dog which continue to annoy in exact proportion to the degree of cleanliness of the dog. It is to be hoped that the paper industry will not resent the comparison, but maybe there is in it an implication which the industry can apply to itself.

School For Paper Salesmen

The salesman who persists for any great length of time with the Sierra Paper Company, Los Angeles, will become an expert on paper, if the efforts of J. A. Kelly, sales manager of the institution have any avail. Mr. Kelly says that many paper salesmen suffer in their endeavors because too many of them do not know enough about the materials they sell, nor about the proper applications of these materials in their various uses, to make their efforts as effective as salesmen as they ought to be. Not that any of these shortcomings were marked in the sales force of the Sierra, but lest there should be any lack of expert knowledge, Mr. Kelley is taking measures to supply the deficiency. Weekly he conducts a school at which every salesman for the

(Continued on page 64)



General view of one of the Shops where DORR equipment is manufactured

THE IMPORTANCE OF DORR SERVICE

The Shops illustrated above are specially equipped to build DORR machines. And each unit, before it is shipped, is assembled in so far as possible and given a careful inspection.

When the equipment is erected on the job our engineers make any required adjustments and supervise initial operation.

During this period your operators are instructed as to how to obtain best results.

We aim to see that each DORR installation is a credit to our client and also to ourselves, and we believe that this service policy assists materially in achieving this result.

Agitators
Thickeners
Classifiers
Pumps
Washers
Save-alls
Slurry Mixers
Sand Washers
Fahrenwald Sizer
Sewage Clarifiers
Water Clarifiers
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INVESTIGATION TESTS DESIGN EQUIPMENT

Outlook for Paper Trade Brighter in Toronto

Paper Box Plants Running to Capacity and Book and Writing Mills More Active — Cheaper Grades of Paper Stock in Steady Request—Better Feeling for Higher Grades Developing—Construction of Fort William Sulphite Mill Progressing

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, Ont., October 18, 1926.—Business in the paper line has picked up again after a lull of some days and orders are coming in nicely. This has caused the members of the trade to feel more cheerful regarding the turnover which will be done during the last half of the year and will naturally help to round out 1926 with a better record than seemed possible during the latter part of September and the first week of October. Book and writing mills are getting more fill-in business and most of them have contract orders, which along with those of a passing character, will keep the plants well employed until after the New Year.

Paper box plants are running well to capacity and business looks good for some weeks yet. It may be stated that the manufacturers of boxes are buying board more freely in anticipation of future requirements, and this state of affairs applies to all light weight paper lines. Manufacturing stationers are active in the interest of the holiday trade.

In the better grades of old waste paper there is a steady call, while the demand in the cheaper lines is active. There has been a slight increase in the figure for No. 1 mixed papers. In domestic rags the market is dull.

A meeting of the Ontario group of the members of the Canadian Paper Trade Association was held in Toronto during the past week and conditions were carefully canvassed. It was the general opinion that the outlook for fall and early winter is better than it seemed to be a month ago.

Affairs of Mattagami Company

The examination of I. W. Killam who last week purchased the assets of the Mattagami Pulp and Paper Company, whose sulphite plant is located at Smooth Rock Falls, Ont., took place in Toronto during the past few days. Mr. Killam purchased the property at the sale for $7,250,000. W. R. Smythe, K.C., appeared for Frank Aldrich, a shareholder of the company. Mr. Aldrich, together with the trustee-in-bankruptcy and certain unsecured creditors of the company, is seeking to prove that a $4,000,000 second mortgage debenture issue is illegal, or, in the alternative, is attempting to secure an order directing Mr. Killam, who is the president of the Royal Securities Corporation, to account for profits made by him through the purchase of the bulk of these securities. In his examination, Mr. Smythe sought to show that, at the time Mr. Killam purchased the first block of debenture stock, he had a plan in his mind to secure control of the issue. Mr. Killam replied that he had no plan but bought the bonds because they were a good buy at 66 and because he had some spare money on hand. He later stated, however, in purchasing the large block of debentures held by E. W, Buckus, that this purchase brought his holdings up to fifty-one per cent and might have influenced the price paid. This block had been bought at par and gave Mr. Killam the controlling interest. The hearing has been taking place before Charles Garrow, K.C., in the Master's Court, at Osgoode Hall, Toronto. An adjournment of the case has been given until October 27.

Fort William Co. Is Expanding

Preparations and plans are under way for the rapid prosecution next year of the programme of expansion to be carried out by the Fort William Paper Company, at Fort William, Ont. George R. Gray, of Sault Ste. Marie, vice-president of the company, recently paid a visit to the site. Mr. Gray is also president of the Kaministiquia Power Company, and made a thorough inspection of both plants. He noted with satisfaction the progress being made in the sulphite mill in connection with the enlarged Fort William Paper Company's plant. "Other developments will be carried right through," he said, "and the mill will be producing 400 tons of news print daily, according to the agreement with the city." Mr. Gray left later for Winnipeg to inspect the new paper mill of the Manitoba Paper Company at Fort Alexander.

Passing of Norman J. Ratcliff

Many friends in the paper trade will regret to learn of the death of Norman J. Ratcliff, secretary of the Ratcliff Paper Company, Toronto, who passed away on October 6 after several weeks' illness, in his 61st year. Mr. Ratcliff, who was a cousin of Frederick L. Ratcliff, president of the company, had spent his whole life in the paper industry. He was born in Markham township, and at an early age became connected with Taylor Brothers' paper mill on the Don, one of the first mills in Canada, and a quarter of a century ago he joined the Ratcliff Paper Company. Mr. Ratcliff, who was held in high esteem by the trade, is survived by his wife and one daughter.

Buying Poplar from the Farmers

J. B. Wilkinson, of the Howard Smith Paper Company, whose new soda pulp plant is located at Cornwall, Ont., has been visiting Renfrew, Barry's Bay, Killaloe, Maynooth, and other places in Ontario, buying a large quantity of poplar pulpwood from the farmers who have always sold to United States buyers but are now disposing of their product to the Canadian mill. It is understood that the Howard Smith Paper Company will purchase all the poplar wood in Ontario that they can get while the farmers are pleased at the quicker returns on their shipments.

Adopts New Trade-Mark

Charles V. Syrett, of the Wilkinson Paper Company, Toronto, has adopted an attractive trade-mark. On a background of green is the maple leaf, the Canadian emblem, bordered in white and black and, set in the center in yellow, with a black border, is the symbol £. Below are the words "Sterling Value." In a banner at the bottom of the trade-mark there appears in black letters upon a white background "Sa-Pa-Co Products." The trade-mark has been registered by Mr. Syrett.

Building Many New Grinders

Nearly 300 men are now employed in the plant of the Port Arthur Shipbuilding Company, Port Arthur, Ont., which is building thirty grinders for the Fort Frances Pulp and Paper Company, six grinders for the Thunder Bay Paper Company and also wet machines for the Thunder Bay Paper Company and the A. P. W. Power and Paper Company, of Nova Scotia. Beaters are also being built for several concerns in the pulp and paper line which are enlarging their plants.

Notes and Jottings of the Industry

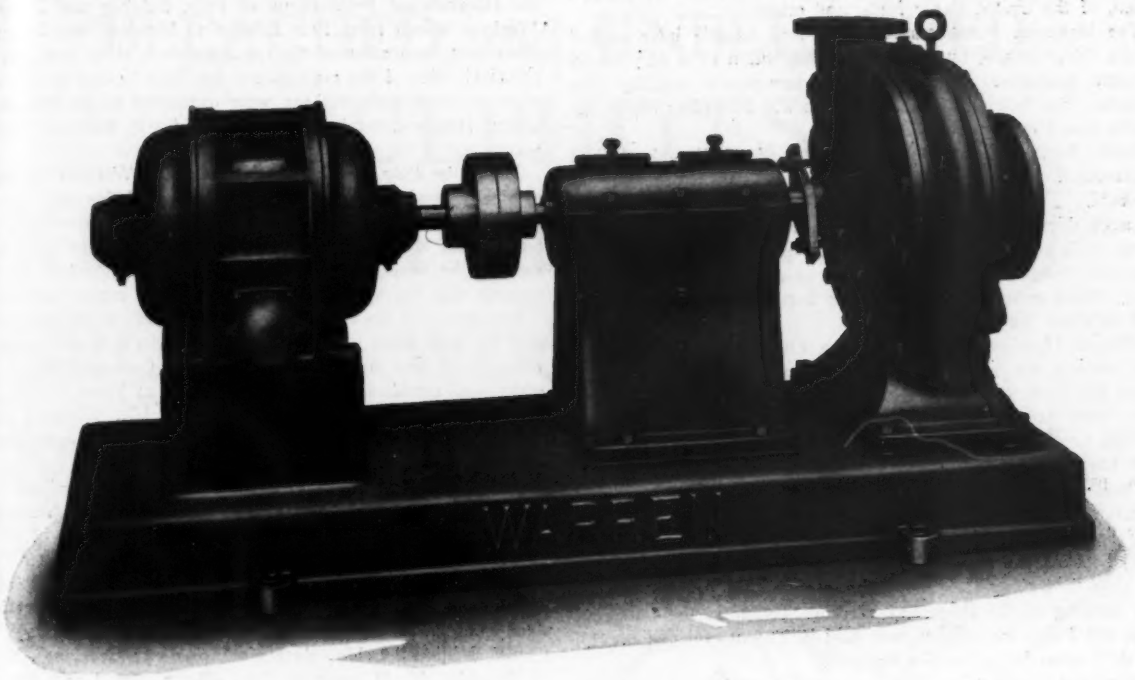
P. B. Wheeler, of the Franklin Paper Company, Holyoke, Mass., was a caller upon the Toronto trade during the past week.

George Stokes, of the city sales staff of the United Paper Mills, Toronto, who was operated upon for appendicitis during the past week, is making good progress toward recovery.

H. B. Donovan, who has been spending a holiday at Oakville, has returned to his work as sales manager of the Canada Paper Company, Toronto.

Harold G. Finlay, vice president of the United Paper Mills, Toronto, and bride, who have been enjoying a month's honey-

The Warren Stuff Pump



It Hasn't Been Equalled

The Warren Stuff Pump has proved itself so superior in performance that its design has been copied.

But the efficiency and dependability that years of accumulated engineering and manufacturing experience give to the Warren Stuff Pump cannot be copied.

That's why it's important for you to specify Warren.

Let us send you a Bulletin containing the complete facts.

Warren 834

Steam Pump Company, Inc., Warren, Mass.

Boston Philadelphia Chicago WARREN St. Paul New York San Francisco

moon on a motor trip to Washington, Atlantic City and Philadelphia, have returned to Toronto.

A large number of Toronto printers and paper dealers are attending the United Typothetæ convention in Detroit, including Fred W. Halls, of the Fred W. Halls Paper Company, Charles Allen, of the United Paper Mills, and others.

The Magazine Publishers Association of Canada have applied to the Tariff Board, Ottawa, for the imposition of a duty on all foreign magazines, periodicals and newspapers coming into Canada. The hearing of the application will take place before the Tariff Board on October 28.

While feeding a conveyor with pulpwood, T. Spevchŏuk was electrocuted in the yard of the Ontario Paper Company at Thorold.

Large shipments of pulpwood are being made by the Spanish River Pulp and Paper Mills from their plant at Espanola to the plant at Sturgeon Falls, to take care of a shortage at the latter mill. About ten cars a day are going forward and the movement will continue for some weeks.

William Hamilton, Ltd., Peterboro, Ont., have been awarded the contract for nine barking drums, each with a capacity of about 250 cords daily, for the Port Alfred Pulp and Paper Company, Port Alfred, Que. Each drum is 12 feet in diameter and 45 feet long, and is being built under a patent of P. Westbye, who has long been associated with the company.

There is still a scarcity of pulpwood cutters in most parts of Ontario. The strike of cutters in the Thunder Bay district, who have been holding out for higher wages, is as yet unsettled, and a dead lock exists between the pulpwood jobbers and the men at the time of writing.

A meeting of the Book and Writing Section of the Canadian Pulp and Paper Association was held in Toronto on October 13, for the transaction of routine business.

Provincial Paper Sales, Ltd., are issuing an interesting house organ which is known as "Provincial's Papyrus." The publication office is in Winnipeg, and the editor is A. C. Hunt. Considerable space is devoted to the lines of paper turned out by the company, but several interesting items of news are also presented.

At the recent National Produced-in-Canada Exhibit, held in he Morgan Building, Montreal, several interesting exhibits were made by pulp and paper firms, among these being the Interlake Tissue Mills, Ltd., Toronto; Howard Smith Paper Mills, Ltd., Montreal and Toronto; Rolland Paper Company, Montreal, and E. B. Eddy Co., Ottawa. Several printing firms also made splendid showings.

Harold Levi, of The Levis, rag and paper merchants, Toronto, who has been ill for some time, is improving.

T. L. Crossley, president of the Industrial Laboratories, Ltd., of Toronto and Montreal, has been appointed special lecturer on pulp and paper in the Department of Chemical Engineering, Faculty of Applied Science, University of Toronto. Mr. Crossley has always taken a deep interest in the technical work of the Canadian Pulp and Paper Association.

S. J. Frame, secretary-treasurer of the Canadian Paper Box Manufacturers' Association, spent a few days in Montreal recently on business.

The Canadian National Railways have completed the construction of a spur line to the site of the paper mill of the Thunder Bay Paper Company, at Port Arthur, Ont. The Canadian Pacific Railway is now building a spur to connect with the new mill. Both lines are about a mile in length.

P. H. Glatfelter Has Not Issued Revised Price List

The P. H. Glatfelter Company of Spring Grove, Pa., writes:—"The statement in the October 7 issue of the PAPER TRADE JOURNAL in which it was stated that the P. H. Glatfelter Company had issued a revised price list, is entirely erroneous. The company has not revised prices in any way."

Brotherhood Office To Continue at Fort Edward

[FROM OUR REGULAR CORRESPONDENT]

FORT EDWARD, N. Y., October 18, 1926.—A movement which has been under way for several months past to have headquarters of the International Brotherhood of Pulp, Sulphite and Paper Mill Workers moved from Fort Edward to Montreal was defeated at the recent convention of the organization held in Montreal. The principal office of the organization has been located in this village since the pulp mill workers were organized as an International Union, largely through the efforts of John P. Burke of Fort Edward.

While the Pulp, Sulphite and Paper Mill Workers' Union was originally confined largely to the Hudson Valley and Northern New York the organization in recent years has recruited a large membership in Canadian paper mill towns. Those in favor of removing the headquarters offices from Fort Edward to Montreal contend that the latter city would be a more central location.

The action of the twelfth annual convention in Montreal means that the main office will be continued in Fort Edward indefinitely. However, it was decided to continue the Canadian branch office which was established several months ago at Three Rivers, Quebec, where the Pulp, Sulphite and Paper Mill Workers are cooperating with the International Brotherhood of Papermakers in an organization drive in that territory.

John P. Burke, of Fort Edward, was re-elected president at the Montreal gathering and Bat Doody, of Palmer, was chosen treasurer. The other officers elected were Maurice Labelle, of Ottawa, Ont., first vice president; H. W. Sullivan, of Worcester, Mass., second vice president; S. E. Launer, Green Bay, Wisc., third vice president; J. W. Taylor, of Bejepacot, Me., fourth vice president; Alec Gibson, Port Arthur, Ont., fifth vice president; William Cutliff, Millinocket, Me., sixth vice president; George C. Brooks, of Franklin, N. H. auditor. The officers named will constitute the executive board of the organization.

Underwood Paper Mills Make Improvements

PLATTSBURG, N. Y. October 16, 1926.—The Underwood Paper Mills are again in full operation after being closed down since late in September for the purpose of making needed repairs. During the period in which the mills were closed several thousand dollars were expended in repairs and improvements. Part of the power plant was reconstructed and a new blower system was installed in the pulp mill.

A new roof was put on the engine room, this work being one of the principal reasons for the necessity of closing the plant. This improvement has been needed for several months but starting of work was deferred until recently because of busy conditions of the plant. Late last winter, following a heavy fall of snow, part of the roof on the engine house collapsed under the weight of the snow causing considerable damage. Temporary repairs were made at that time and the plant resumed operations until a more opportune time to erect a new roof over the building.

The Underwood Mills, which are a part of the Tait Paper and Color Industries, manufacture paper used in the production of wall paper and prior to the shutdown the mills have been very busy for several months. With the improvements completed and the business outlook exceptionally bright it is understood that more workers are to be taken on in the near future.

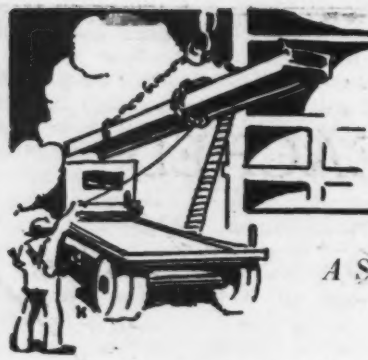
Blake, Moffit & Towne Lease Building

FRESNO, Cal., October 8, 1926.—Blake, Moffit & Towne, paper merchants, 242-248 South Los Angeles street, Los Angeles, have leased a new building here for an aggregate of $100,000, and will move in on completion. The building is being constructed by Bekins Van and Storage Company of Los Angeles at the corner of Monterey and Van Ness avenues at a cost of $50,000, and will be one-story with a 100-foot frontage and a 125-foot depth.

BLEACHED and UNBLEACHED
SULPHITES
KRAFT PULPS
GROUND WOOD
NORRONA
PULP STONES

PERKINS-GOODWIN CO.
33 WEST 42nd STREET
NEW YORK

PAPER
PRINTING PAPER
of
EVERY DESCRIPTION



CONSTRUCTION NEWS

A Summary of Vital Facts Regarding Construction, Finances and Operation of Paper Mills

Construction News

Monroe, La.—The Brown Paper Company is reported to have preliminary plans under consideration for the construction of a new paper-making unit adjoining the present mill, estimated to cost more than $1,000,000, with equipment. It will be devoted to the production of kraft papers. Financing, it is understood, is being arranged to carry out the project.

Terre Haute, Ind.—The Unique Printed Products Company, 2220 North 13th street, has completed plans for the erection of a new paper goods plant and will proceed with construction at an early date. It will be one-story, 40 x 175 feet, brick, steel and reinforced-concrete, estimated to cost in excess of $50,000, with equipment. The Shourds-Stoner Company, Tribune Building, Terre Haute, is architect.

York, Neb.—The York Blank Book Company has preliminary plans under way for extensions and improvements in its plant, to include the construction of a new four-story addition, 30 x 40 feet, and installation of considerable additional equipment. The entire project is reported to cost more than $50,000. Work will soon begin.

Houston, Tex.—The Houston Paper Stock Company, 1601 Silver street, will make improvements in its plant, including the installation of elevator and other building appurtenances. The company is also reported to be arranging for expansion in facilities.

Aurora, Ill.—Miller, Bryant, Pierce & Co., manufacturer of carbon papers, etc., will push construction on the proposed new addition to its local plant on South River street, to be three-story and basement, 60 x 80 feet, reported to cost about $50,000. Contract for erection recently was let. Lockwood, Greene & Co., 400 North Michigan avenue, Chicago, Ill., architects and engineers. F. E. Miller is president.

Birmingham, Ala.—The City Paper Company, 2319 First avenue, is reported to have preliminary plans under way for the construction of a new plant at Thirty-seventh street and First avenue, estimated to cost about $25,000, exclusive of equipment.

East Walpole, Mass.—Bird & Son, Inc., manufacturer of paper roofing and kindred products, will soon proceed with a new one-story addition to its plant to be used for storage and distributing service. A contract for the structure recently was let. Monks & Johnson, 99 Chauncy street, Boston, Mass., are architects and engineers.

New York, N. Y.—Fire, October 11, damaged a portion of the building of the Franc-Graham Paper Company, 25 West 15th street. An official estimate of loss has not been announced. The damage will be replaced.

Baltimore, Md.—The Gordon Paper Box Company, 314 Hanover street, has plans for extensions in its plant, to include the installation of additional equipment for considerable increase in output. Work will soon begin. The estimated cost is not announced.

Menasha, Wis.—The Valley Paper Mills Company is reported to have plans under way for a proposed new addition to its plant, to be one-story, estimated to cost approximately $65,000, with equipment.

Covington, Va.—The Bates Valve Bag Company, 8340 South Chicago avenue, Chicago, Ill., manufacturer of special paper bag products, is pushing construction on a proposed local branch plant and purposes to have the building ready for equipment installation at an early date. The factory will be one-story, 80 x 240 feet, reported to cost close to $50,000. The general building contract is being carried out by the Morton C. Tuttle Company, Boston.

Cincinnati, Ohio—The Rudolph Sattler Company, Third and Vine streets, manufacturer of paper specialties for advertising use, etc., has work under way on a new addition to its plant to cost close to $100,000, with equipment. The factory will be two and three-story, 75 x 150 feet, located on McMillian street. Plans were recently filed. Bendigs, Panzer & Martin, Southern Ohio Bank Building, are architects.

Sherbrooke, Que.—Following the acquisition of the Chaleur Bay Mills Company by the International Paper Company, Pershing Square Building, New York, recently consummated, the purchasing company is reported to have plans under way for the construction of a new pulp mill on one of the available sites. It is expected to cost more than $500,000, with equipment. In connection with its purchase the International company secured a large saw mill and lumber property, and is understood to be planning to use these facilities for raw material supply for the projected plant.

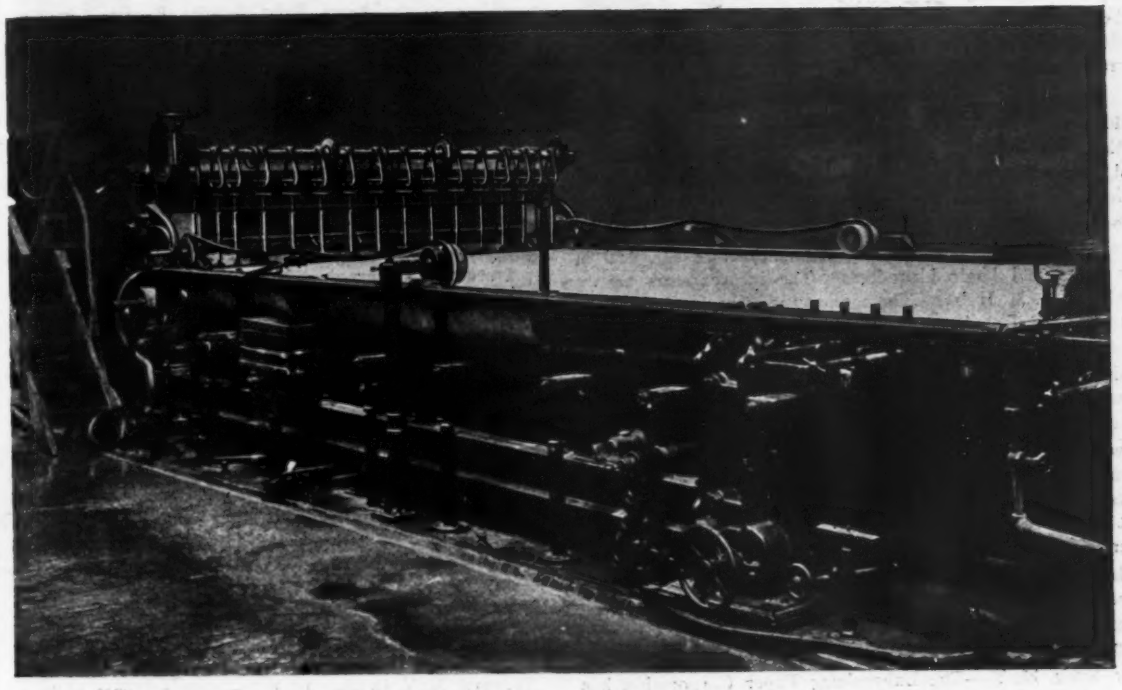
Ottawa, Ont.—The International Paper Company, Pershing Square Building, New York, is pushing construction on its proposed new local mill on the Gatineau River, and expects to have the unit ready for equipment installation at an early date. The plant is slated for completion by July of the coming year. The company also has active work in progress on its new newsprint mill at Three Rivers, Que., and proposes to develop this plant to a maximum capacity of 700 tons of news print per day, early in 1927.

Millbank, N. B.—The Frazer Companies, Ltd., is reported to be planning the installation of additional equipment for increased output.

Sault Ste. Marie, Ont.—The Spanish River Pulp and Paper Mills, Ltd., is planning the early installation of additional equipment at its power house, including two steam turbo-generators, boiler apparatus, and accessories. The company is said to be planning for the reconstruction of its boiler plant and will place this work under way at an early date. The expansion plans include new equipment in the pulp mill, comprising electric-operated pulp grinders for large capacity.

Smoky Falls, Ont.—The Spruce Falls Power and Paper Company, Ltd., 300 Bay street, Toronto, has awarded a general building contract to Morrow & Beatty, Ltd., Peterboro, Ont., for its proposed local pulp and paper mills, including hydroelectric power development. The project will consist of a group of units, reported to cost close to $10,000,000, with machinery. Actual work will be placed in progress at an early date.

Prince George, B. C.—J. H. Gundy, one of the heads of Wood, Gundy & Company, Toronto, Ont., and associates, are



150 Are Now in Service Voith Stock Inlets

During the past two years 150 Voith Inlets have been installed on paper machines in representative paper mills. In every instance the quality of their papers has been improved and the production costs have been lowered.

Not only the fact that 150 Voith Inlets are in use proves that the paper industry has placed its stamp of acceptance and approval on this device. Inlet installations mean repeat orders depending on the number of paper machines in the mill and the number of repeat orders that continually come in demonstrates it conclusively.

We have ready for you an attractive 20-page booklet giving full particulars regarding the Voith Inlet. Write for your copy today.

Some Mills That Are Standardizing on Voith Inlets

Kimberly-Clark Company	13
Detroit Sulphite Pulp & Paper Co.	4
Champion Coated Paper Co.	10
Eastern Manufacturing Co.	3
Hinde & Dauch Paper Company	3
Marathon Paper Mills Co.	3
Minnesota & Ontario Paper Co.	4
Northwest Paper Company	4
Warren Manufacturing Company	6
Escanaba Paper Company	2
Rhinelander Paper Company	3
Mead Pulp & Paper Company	7
Menasha Printing & Carton Co.	3
Nekoosa Edwards Paper Company	6
Hollingsworth & Whitney Company	4
Northern Paper Mills	4
Hammermill Paper Co.	5

VALLEY IRON WORKS CO.

APPLETON, WISCONSIN

New York Office: 350 Madison Avenue

reported to be developing plans for the construction of a new pulp and paper mill in the vicinity of Prince George. The project will consist of a complete pulp and paper-making unit, with power development, expected to cost more than $15,000,000. A company will be organized to carry out the enterprise. Others interested include Frank P. Jones, president, Canada Cement Company, Montreal; and Angus McLean, Bathurst Company, Bathurst, N. B.

New Companies

Baltimore, Md.—The Gordon-Lavin Paper Box Company, Inc., 118 North Paca street, has been incorporated, capital not stated, to manufacture and deal in paper boxes and containers. The incorporators are Isaac Gordon and Louis Lavin.

Brooklyn, N. Y.—The Schnall Box Corporation, has been incorporated with capital of $20,000, to manufacture and deal in paper boxes and kindred products. The incorporators are S. Schnall and A. M. Holser. The company is represented by R. H. Sternfield, 1540 Broadway, New York.

Haddonfield, N. J.—The National Fibre Products, Inc., has been incorporated under Delaware laws, with capital of $50,000, to manufacture paper products, etc. The company is represented by the Capital Trust Co. of Delaware, Dover, Del.

New York, N. Y.—The National Fibre Company has been incorporated with capital of $10,000 to manufacture and deal in fibre containers, etc. The incorporators are J. Dix and M. and S. Small. The company is represented by Blumberg, Leight & Parker, 200 Fifth avenue, New York.

Wilmington, Del.—The R. C. Osborn & Co. has been incorporated with capital of $100,000, to manufacture paper products. The company is represented by the Corporation Trust Company of America, duPont Building, Wilmington, Del.

New York, N. Y.—The Bahrenburg Paper Corporation has been incorporated with a capital of $45,000, to manufacture and deal in paper goods. The incorporators are H. A., F., and P. C. Bahrenburg. The company is represented by G. H. Burtis, 189 Montague street, Brooklyn, N. Y.

Wilmington, Del.—The Jersey Paper Tube Company, care of David J. Reinhardt, Citizens' Bank Building, Wilmington, representative, has been incorporated with a capital of $90,000, to manufacture paper tubing, containers and kindred products.

Dallas, Tex.—The Texas Wall Paper Company has been organized to deal in wall papers, etc. The company is headed by L. A. and Robert Stoll, both of Dallas.

Chicago, Ill.—The Burhop Paper Company, 2244 Argyle street, has been incorporated with a nominal capital of $1,000, to manufacture and deal in paper goods. The incorporators are Edwin H. and H. R. Burhop.

New York, N. Y.—The Phenix Fibre Box Corporation has been incorporated with a capital of $10,000, to manufacture fibre boxes and containers. The incorporators are A. H. Freisner and P. Kornbleth. The company is represented by Lewis Nadel, 285 Madison avenue, New York.

Wilmington, Del.—The Stone Straw Corporation, care of David J. Reinhardt, Citizens' Bank Building, Wilmington, representative, has been incorporated with a capital of $1,800,000, to manufacture strawboard products, paper tubes and kindred specialties.

New York, N. Y.—The R. & R. Loose Leaf Company has been incorporated with a capital of $20,000, to manufacture and deal in paper specialties. The incorporators are M. and D. Reich, and J. Rosenberg. The company is represented by M. J. Goldston, 31 Nassau street, New York.

Wilmington, Del.—The International Playing Card Company, care of the Corporation Trust Company of America, du Pont Building, Wilmington, has been incorporated with a capital of $1,000,000, to manufacture playing cards, card stocks, bristol board specialties, etc.

News Print Production for September

Production of news print in the United States during September, 1926, amounted to 136,167 tons and shipments to 135,300 tons, according to the News Print Service Bureau. Production in Canada amounted to 161,287 tons and shipments to 162,740 tons, making a total United States and Canadian production of 297,554 tons and shipments of 298,040 tons. The news print mills also made 1,409 tons of hanging paper in September, 227 tons of which were made in Canada. During September 16,525 tons of news print was made in Newfoundland and 1,345 tons in Mexico, so that the total North American production for the month amounted to 315,424 tons. For the nine months of 1926 the Newfoundland output of news print totalled 133,590 tons, an increase of 145 per cent over 1925, and the Mexican output 9,572 tons, an increase of 1 per cent compared with the previous year.

During September the United States mills operated at 95.7 per cent of rated capacity and the Canadian mills at 99.0 per cent.

The United States mills made 12 per cent more in the first nine months of 1926 than in the same period of 1925, and the Canadian mills made 24 per cent more than in the first nine months of 1925.

The combined production of the United States and Canadian mills in the first nine months of 1926 was 18 per cent more than in the same period of 1925.

Stocks of news print paper at United States mills totalled 18,741 tons at the end of September and at Canadian mills 14,684 tons, making a combined total of 33,425 tons, which was equivalent to 2.7 days' average production.

Ashton Moors Injured at I. P. Co. Plant

[FROM OUR REGULAR CORRESPONDENT]

CORINTH, N. Y. October 16, 1926.—Ashton Moors, night foreman at the Palmer Falls plant of the International Paper Company, was severely injured Monday night when his arm was caught between the drum and reel of No. 9 machine. While the injury is of a severe nature Dr. L. A. Parmenter, company physician, who is attending the injured man is hopeful that the arm will be saved and that amputation will be unnecessary.

Mr. Moors, who has been in the employ of the company as night foreman for a number of years, was reaching for the end of the paper when in some manner he slipped, lost his footing and fell against the machine, his left arm being caught between the drum and reel. A. J. Crittendon, machine tender on No. 3 machine, rushed to Mr. Moors aid and succeeded in extricating him but not before the arm had been drawn into the machine as far as the shoulder. The arm was badly crushed and burned but it was found after an examination by the plant physician that no bones were broken. Dr. Parmenter declares that there is a possibility the arm will be saved.

This is the second serious accident occuring at the Hudson River Mill within a comparatively short time, No. 9 machine figuring in both. It will be recalled that Elmer Smith several weeks ago suffered injuries when drawn between the drum and reel of the machine which resulted in his death. While no one witnessed the accident in which Mr. Smith received fatal injuries it is believed that he also caught his hand between the drum and reel and before he could extricate himself the left side of his body was drawn into the machine and crushed.

Allege Violation of Day of Rest Statute

[FROM OUR REGULAR CORRESPONDENT]

HOLYOKE, Mass., October 12, 1926.—The Holyoke Central Labor Union at its meeting Sunday voted to instruct its grievance committee to take up with the state officials the alleged violation of the state statute that compels paper mill owners to give one day of rest in seven. There have been repeated complaints the labor officials say. Several mills are involved in the alleged violations.

—LICENSED—

For several years we have been producing Aldrich Removable Fourdriniers We interchange design with the Inventor

ASK US

The Pusey & Jones Company

Wilmington, Delaware

New York Trade Jottings

Percy B. Wilson, vice-president of the Spanish River Pulp and Paper Mills, Ltd., is a welcome visitor to New York, this week.

* * *

A. L. Dawe, of the Canadian Export Paper Company, Montreal, Que., is attending the meetings of the News Print Service Bureau in New York this week.

* * *

Louis Bloch, president of the Crown Willamette Paper Company, is renewing acquaintance with his many friends in the New York paper industry this week.

* * *

G. H. Rady, of the E. J. Keller Company, Inc., importers of paper makers supplies, of the Fifth Avenue Building, New York, sailed on the Cunard liner *Berengaria* last week on a business trip to Europe.

* * *

Ryosaku Takata, of the Oji Paper Manufacturing Company, Ltd., of Tokio, Japan, was in New York early this week. He is paying a flying visit to the United States and expects to sail for Europe in the near future.

* * *

The Ladies Night Dinner and Dance of the New York Association of Dealers in Paper Mills Supplies, was held last Saturday in the South Garden of the Hotel Astor. The event was well attended and proved highly enjoyable and successful.

* * *

The regular weekly luncheon meeting of the New York Division of the Salesmen's Association of the Paper Industry, was held last Monday at the Town Hall Club. Amongst the distinguished guests was Paul S. Hanway, statistician of the American Paper and Pulp Association.

* * *

Marquardt, Blake & Decker, Inc., specialists in standard printing papers, of 153-155 Spring street, New York, have just issued a useful service chart upon which considerable time and thought must have been spent. The chart is arranged to show at a glance the full list of papers carried by this enterprising organization. The various classifications are fully described as to colors, weights and prices.

* * *

The News Print Service Bureau, of 342 Madison avenue, New York, has just issued its monthly bulletin, No. 105. This issue is printed on paper made by the Forest Products Laboratory, Madison, Wisconsin. The pulp used in the paper is made by the "semi-chemical" process from aspen, black gum, and birch and disintegrated in the rod mill. The pulping chemicals consisted of weak solutions of sodium sulphite and sodium bicarbonate or carbonate, and the yield of pulp was approximately 85 per cent, air dry, of the original weight of the wood treated. About 10 per cent clay and alum was used in these papers. The pulp was not bleached.

* * *

Certain rags, consisting of crude paper stock, used chiefly for paper making, and imported by G. P. Lotterhand, Inc., and Robert Ingram, were incorrectly returned for duty as waste, under Paragraph 1457 of the Tariff Law of 1922, at 10 per cent ad valorem, the United States Customs Court at New York rules in a decision just handed down. Claim of the protestants for free entry under the provisions of Paragraph 1651 of the same law, as paper stock, crude, is therefore sustained by Judge Adamson, who writes the opinion for the Court.

* * *

D. S. Gottesman, chairman of the Board of the Central National Bank, of the City of New York, announces the election of Ernest V. Connolly as president of the Central National Bank. Mr. Connolly resigns his position as vice-president of the National Park Bank, one of New York's largest banking institutions, with which he has been connected for over ten years. The Central National Bank has, since its inception, made a specialty of catering to the interests of the pulp, paper and allied industries, and has already developed a large clientele in the same. D. S. Gottesman is president of M. Gottesman & Co., Inc., widely known as pulp and paper merchants.

* * *

The Mathieson Alkali Works, Inc., of 250 Park avenue, New York, has forwarded notification to its sales organization that the schedule prices applying to bleaching powder and liquid chlorine during 1926 will be used to apply for deliveries during 1927. Contracts will be offered at these prices for the twelve months period ending December 31, 1927, at once. The firmness of these prices during the current year has served as a direct indication of their fairness to both producer and consumer, so that there is no prospective resistance to the program.

* * *

The H. J. Gray Company, of 228-238 East 44th street, New York, announces that plans have been laid for celebrating their sixth anniversary by having a dinner party, followed by a theater party on October 30. The staff of sixteen will celebrate the event and will make it a company affair exclusively. The organization is especially jubilant as they have, this year, exceeded the goal set for the amount of sales to be attained. This goal was established just six years ago when the concern started. This accomplishment is the result of a combined inter-department understanding, where the object of the business is interpreted alike by every department, whether it be sales department, bookkeeping department, billing department or shipping department.

* * *

A special meeting of the Foreign Trade Division of the National Association of Waste Material Dealers, Inc., has been called by J. W. Long, chairman of that division, to be held at the Hotel Astor, New York, on Friday, October 22, at 3 P. M., for the purpose of ratifying a proposed agreement under which importers will handle imports of rags in the future. The conditions drawn up in a tentative way and unanimously approved at a meeting held on September 29 have now been put in final shape and it is very important that every member importing rags should attend the meeting on the 22nd, prepared to sign an agreement which could only be terminated upon certain conditions mutually agreed to. Every member interested is expected to have a representative present at this important meeting.

* * *

The well known Koenigsberg and Norddeutsche strong and easy bleaching sulphites will be sold exclusively in the United States by Parsons and Whittemore, Inc., after January 1, 1927. These pulps have had a wide sale in the past and in view of the many changes that have been made in the mills recently which improved the quality considerably, it is expected the sale of these pulps will be largely increased. This announcement is another indication of the rapid expansion and importance of Parsons and Whittemore, Inc., in the pulp trade, on which they are being congratulated by their many friends.

* * *

Francisco de la Macorra, of the San Rafael Paper Company, Mexico City, Mexico, was in New York last week. Mr. Macorra is a graduate of M. I. T., 1924, in Mechanical Engineering, and since his graduation has been connected with the engineering department of the San Rafael Paper Company, of which his father, José de la Macorra, Sr., is general manager, and his brother, José de la Macorra, Jr., is general superintendent. Mr. Macorra is planning an extensive trip in the United States and Canada, visiting paper mills and plants in other industries, with a view of making a special study of the engineering developments.

Koenigsberg Norddeutsche

Strong Sulphite Pulps

ANNOUNCEMENT

is hereby made to the Trade that EKMAN & COMPANY A/B of Gothenburg, Sweden, represented by PARSONS & WHITTEMORE, INC., have been appointed SOLE SELLING AGENTS for U. S. A. from JANUARY FIRST, 1927, for the well-known woodpulps manufactured by the KOENIGSBERG PULP MILLS belonging to the KOHOLYT A/G (Cosse and Sackheim)

GOTHENBURG—OCTOBER, 1926

EXCLUSIVE SALES AGENTS

(After January 1st, 1927)

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Incorporated

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NEW YORK

PAPER TRADE JOURNAL
ESTABLISHED 1872
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PAPER
The Magazine of the Paper Industry
HENRY J. BERGER, Editor

Member A. B. C. Audit Bureau of Circulations

Vol. LXXXIII New York, October 21, 1926 No. 17

PROSPECTS FOR PAPER MAKING IN ALASKA

Encouraging prospects for pulp and paper manufacturing projects in Alaska are outlined by the United States Forest Service in an official report submitted by Charles H. Flory, district forester for Alaska. This report follows a survey recently made which shows that water power sites can be developed in certain areas to supply power at one-half the cost of that at power sites in many parts of the United States.

Mr. Flory's report embodies the findings of the Navy Department's Aerial Survey Expedition to Alaska in which the Forest Service and the Geological Survey participated. It indicates "large potential water-power resources throughout southeastern Alaska" and expresses the hope that further surveys will be made by the Government in the interests of the paper industry in Alaska.

Advantages of surveying the territory from the air are shown by Mr. Flory's statement that more information concerning the national forest resources of Alaska can be gained in a few field seasons than could be acquired in 20 years of surveying from the ground. About 350 square miles can be photographed from the surveying airplane in one hour.

The maps made during the recent flights show in clear relief, light and heavy timber stands, brush, swamps, lakes and streams in the more inaccessible regions, and will be useful in selecting routes for roads and trails to undeveloped power sites where it is hoped wood pulp factories can be built.

The region covered by the survey included Ketchikan and the islands and mainland between Dixon entrance and Chatham Strait, in southeastern Alaska. One more field season would be sufficient to complete the survey of the Tongass National Forest, it is estimated, and information worth thousands of dollars to prospective pulp and paper manufacturing interests would be made available.

It was found that several sites on Ketchikan Island formerly considered impossible to develop because of their inaccessibility, offer excellent opportunities for development, and that there are several passes, visible from the airplane, to provide routes for transmission lines to a central power plant. Two previously unknown sites were also discovered, and can be readily tied up to the other units of the power system which it is hoped to develop on Ketchikan Island.

"These discoveries," the report stated, "put an entirely new complexion on the possibilities for the paper making industry at Ketchikan. The photographs are of inestimable value as to the preliminary reconnaissance that we must make of extensive areas of pulp timber forests.

"They plainly show the well-timbered and sparsely timbered areas. By transferring these to a map and then doing a limited amount of field work, we can very quickly obtain a sufficiently accurate estimate of the timber resources to permit of laying out pulpwood areas for large paper plants."

"We are especially fortunate that this work is being done at this time when pulp and paper manufacturers have just started engineers in this new field to study our timber and water power resources with a view to establishment of the industry here," wrote Mr. Flory in his report. "I know of nothing more effective that could be done at this time to assist us in getting this industry started."

AN ANALYSIS OF DIVIDENDS

An average of only three and a half cents out of every dollar of gross receipts annually of all the corporations in the United States is applied to cash dividends even in good years, according to an analysis of corporate finances made by the National Industrial Conference Board, 247 Park avenue, New York. Cash dividends in 1923, the latest representative good year for which data are available ranged from an average of 7 per cent of total receipts among corporations engaged in financial operations, such as banks, insurance companies and the like, to as low as an average of 1.2 per cent of total receipts in wholesale and retail trade. In the same year, transportation and public utility companies disbursed 6.3 per cent of their gross receipts as cash dividends, while the manufacturing companies' total cash dividends amounted to only 3.6 per cent of their total receipts.

The total amount set aside in 1923 for improvements, expansion, making up previous losses and other capital reserves represented little more than 2 per cent of the total receipts of all corporations, and 2.6 per cent was charged to depreciation. This 2 per cent of gross receipts not disbursed as cash dividends also covers the item of stock dividends which loom so large in creating a popular impression of great prosperity in the case of a few individual companies. But the relative importance of such surplus earnings, as regards the business of the nation as a whole, in the light of the Conference Board's analysis obviously is very small, being a fractional portion of 2 per cent of total receipts.

By far the greatest proportion of the gross income, 86.8 per cent or nearly nine-tenths of the total receipts of all corporations in 1923 went into operating expenses, covering wages, cost of materials, fuel, power and supplies, officers' salaries and miscellaneous overhead expenses. Taxes claimed 2.8 per cent of the total receipts.

These figures, the Conference Board points out, reflect the responsibility resting on management under the prevailing regime in which business depends on large turnover with relatively small profit per unit of sale. A five per cent shrinkage in the volume of sales of a company doing no better than the average, for instance, would be sufficient to endanger the margin of income available for dividends, and a 10 per cent drop in business activity

could wipe out the entire net profit and might even result in a substantial deficit for the year, unless operating expenses can be sufficiently and promptly enough reduced to offset the decrease in sales.

In the manufacturing industries, wages, materials and supplies consume approximately 70.7 per cent of the total receipts, while such fixed charges as taxes, interest and depreciation in 1923 absorbed another 5.3 per cent, officers' salaries 1.7 per cent and miscellaneous overhead expenses 16.2 per cent. In times of declining business activity therefore only those industrial managers who were alert as to the changing business trend were able to effect the necessary economies in time to escape the necessity of reducing payrolls and of hazarding profits.

Contrary to popular impression, the margin of total receipts representing net profits of corporations engaged in wholesale and retail trade is smaller than that in any other line of business activity. It amounted to only 2.6 per cent in 1923, and strikingly reflects the prevailing tendency of large turnover at a small profit per sale. Only a little more than one per cent of total receipts was paid out as cash dividends in that year by trading corporations, 1.4 per cent of their gross income representing earnings set aside for expansion, improvements and to make up past losses.

To Hear Mountain Mills Reorganization Case

[FROM OUR REGULAR CORRESPONDENT]

PITTSFIELD, Mass., October 19, 1926.—Judge Bishop of the Superior Court will give a hearing Wednesday on the petition of Louis T. Stevenson, receiver of the Mountain Mills Paper Company of Lee for reorganization of the company. This is the case of the Lee National Bank, the Lee Electric Company and Clark Aiken Company against the paper company as respondent. The report of Mr. Stevenson as receiver from January 1, 1926, to October 1, 1926, shows a net profit of $18,960. The total amount of claims filed against the company is $185,590 of which the largest are Louis T. Stevenson, $72,505; Berkshire Loan and Trust Company of Pittsfield, $23,022; Agricultural National Bank, $17,707; Lee National Bank, $12,512.

The reorganization committee assents to the reorganization plan which includes the conversion of the unfunded debt of $185,000 into a stock liability. Mr. Stevenson holds over 70 per cent of the claims that are unsecured, and he has agreed to subordinate over 92 per cent of these claims to those of the remaining unsecured creditors by taking common stock instead of preferred which they are to receive.

All the preferred stockholders and 99.1 per cent of the common shareholders have assented to the reorganization plan.

M. R. Bhagwat Studying at P. H. Glatfelter Plant

SPRING GROVE, Pa., October 11, 1926.—M. R. Bhagwat, M.A., B.Sc. in Ch.E., a native of India, who was one of those in attendance at the sessions of the Fall Convention of the Technical Association of the Pulp and Paper Industry in York last month, has been here studying methods of operation at the paper plant of P. H. Glatfelter company. Mr. Bhagwat recently finished a course in chemical engineering and research work at Columbia university, New York city. He is now on a short vacation, and expects to return to the university to resume his work as research chemist to Dr. R. H. McKee, professor of chemical engineering at Columbia University, New York. He is a member of the American Chemical Society.

He has been in the United States for the last five and one-half years and during all this time he studied at different institutions of learning.

New Canadian Research Laboratories Assured

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., October 16, 1926.—At a meeting of the directors of the Canadian Pulp and Paper Association on Friday it was decided that the annual meeting of the association will take place on January 28. One of the principal subjects for report will be the progress which has been made toward the erection of the association's building on the site of the Canadian Forest Products Laboratories, University street, Montreal. Of the $350,000 needed to finance this building $300,000 has already been raised, and it was voted at the directors meeting to give the committee additional time to raise the remainder of the total amount, $250,000 is to be applied to the construction of laboratories and $100,000 to an endowment fund to provide permanently for the association's share in the care and maintenance of the building.

Edward Beck, secretary of the association, in making the above public, stated that the new building will be of a permanent character with fire-proof construction. The basement floor will extend over practically the whole area of the lot, and will average 15 feet in height. This means that a considerable part of it will extend out in the rear of the building proper and can thus be provided with top lighting. Practical accommodation will here be afforded for the semi-commercial pulp and paper apparatus and the experimental machinery for artificial silk.

The building proper, facing University street, will be about 160 feet long and 55 feet deep. Above the basement level will be three floors. The first will be devoted almost entirely to the executive offices of the Canadian Pulp and Paper Association, of the division of pulp and paper of the Forest Products Laboratories, and of the department of industrial and cellulose chemistry of McGill University.

On the upper floors will be the library and the various research laboratories of these organizations. Reasonable provision has been made for expansion both in the research laboratories and in the semi-commercial laboratories on the basement floor.

McGill University will work upon the more fundamental problems on which the ultimate progress of the industry depends; the Forest Products Laboratories will represent the field of experimental research and the Pulp and Paper Association will represent the application to industrial practice of the findings of the experimental laboratories.

In connection with the new building, Dr. Harold Hibbert, head of the department of cellulose and industrial chemistry at McGill University, will carry on research work. The E. B. Eddy professorship of industrial and cellulose chemistry for cellulose research at McGill University was founded under the will of Mrs. E. B. Eddy, whose bequest was paid over to the university in 1915, and since that time the new chair has been occupied by Dr. Hibbert.

Although primarily a Dominion Government institution, the Forest Products Laboratories was established at McGill. The old buildings in which the laboratories are housed were intended, when first occupied, to serve as temporary quarters.

The laboratories are a government institution, making the Dominion Government's co-operation in the Association's building plan essential.

It is uncertain whether the lumber testing division, the wood preservation and the pathology division will be included among the occupants of the new building.

Paper Demand Shows Increase in Cleveland

[FROM OUR REGULAR CORRESPONDENT]

CLEVELAND, Ohio, October 18, 1926.—Paper jobbers continue to report business in much better condition than one year ago with a steady demand for all lines of paper. Sales volume is about 10 per cent ahead of 1925. Collections have slightly improved with those houses who, two months ago reported slow collections.

If You Want to—

Increase your Beating Capacity
Reduce your Power
Economize on Mill Space
Improve your Stock
Lower your Costs

All for a very nominal expenditure,

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No one type of beater is ideal for all kinds of stock. We have several NEW types of HIGH SPEED-HIGH DENSITY BEATERS, some one of which will best suit your conditions.

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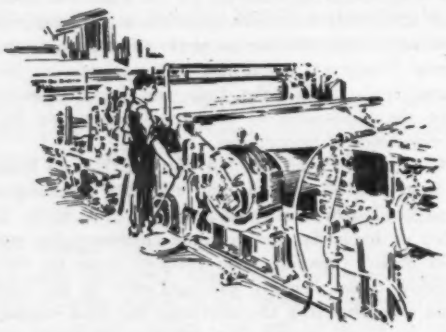

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Section of the
Technical Association of the Pulp and Paper Industry

AN ORGANIZATION FOR THE ENCOURAGEMENT OF ORIGINAL INVESTIGATION AND RESEARCH WORK IN MILL ENGINEERING AND THE CHEMISTRY OF PAPER, CELLULOSE AND PAPER-MAKING FIBERS GENERALLY; IT AIMS TO PROVIDE MEANS FOR THE INTERCHANGE OF IDEAS AMONG ITS MEMBERS IN ORDER THAT PROCESSES OF MANUFACTURE MAY BE MADE MORE EFFICIENT AND IMPROVED ALONG TECHNICAL LINES.

Conducted by W.G. MacNAUGHTON, Secretary

The Trend In Paper Mill Electrification

By R. H. Rogers, Industrial Engineering Dept., General Electric Co.

Visits to various paper mills over a term of years reveal a marked trend toward more complete electrification and show that methods of applying electric power are undergoing evolution.

Along with electric power have come wholesale methods of doing things as contrasted with former picce-meal ways that naturally carried with them high labor and maintenance costs. Electric power has enabled the paper mill to more fully utilize its hydro-power regardless of its seasonal fluctuation or the remoteness of its location. It has facilitated the enlargement of old mills on the site as well as the construction of new mills on more advantageous sites. It has placed at the mill's disposal, by purchase, unlimited power with close regulation and without seasonal curtailment because it can be drawn from great interconnected systems having storage capacities far beyond that possible for any mill that is dependent upon its own hydraulic works.

Two foot logs have given way to the four foot logs and the one-man-each knife barkers have given way to the huge barking drum with its own motor drive and its very small fraction of a man's time per log barked. Motor driven conveyers and stackers have replaced horses, carts and drivers. Eight huge stackers are to be seen in one mill yard with thousands of feet of chain conveyors all of high class construction and with elaborate fire protection by means of high fire walled turret towers.

Rapid and Radical Changes

The art of wood grinding, and it is an art, has undergone rapid and radical changes with the advent of electric power. Grinder rooms are up on the general mill level instead of down in a ravine to be handy to the water wheels but unhandy for everything else. Today many grinders are miles away from water power through utilizing that power through electric transmission Power is easier to transport than are logs and pulp. Speed and load regulation afforded by electric power, drawing as it does on many hydraulic heads, result in a better quality and more usable pulp. The first step was the utilization of synchronous motors to drive pocket grinders, then came the magazine grinders with intermittent hydraulic feed, driven singly or in pairs by synchronous motors.

The present practice makes use of magazine grinders driven by synchronous motors and fitted with motor driven continuous feed, the rate of which is varied to hold constant load on the driving motors. This fine load regulation is secured by varying the voltage supplied to the direct current feed motors by means of an automatic rheostat in the field circuit of the generator that drives the feed motor. The rheostat is actuated by slight changes in the power circuit to the synchronous motor that is directly connected to the grinder shaft. As a result, the feed motors operate over wide and almost constantly changing rates of speed to the end that the synchronous motor loads are held constant within say 1½ per cent. In a mill having fifteen 2400 and 2800 horsepower motors driving grinders this close load regulation assures a high quality of pulp and is highly advantageous in respect to the monthly rates and costs of purchased power.

A mill recently visited is operating three 1200 horsepower synchronous motor driven grinders on purchased secondary power from 11:00 p. m. to 11:00 a. m. daily. This practice gives them an extremely attractive rate for power and 5 men are doing the work that formerly required 35 men and their own intermittent and unsatisfactory water power, driving pocket grinders.

The feed motors before mentioned, by means of ingenious control panels, successfully execute several other duties such as; backing off log pressure for starting up; compensating for large and small stones on the same shaft; holding half load on the drive motor when one stone only is being used; jacking up the casings when stones are to be changed; furnishing continuous graphic records of the feed motor and driving motor loads.

Elimination of News Print Beaters

A factor of note is the elimination of the use of beaters and jordans in the production of news print paper which has followed the adoption of the modern methods of grinding where more truly than ever "paper is made on the grindstones." Between the grindstones and the soft stock tanks changes are taking place in the electric drive for screens, for here we find high speed belted induction motors giving way to slow speed direct connected synchronous motors—so arranged that there are but two bearings for each motor driven screen. This practice insures improvement in the mill power factor with the attendant advantages of better voltage regulation and smaller investment in distribution equipment. Floor space is economized and belts and additional bearings are eliminated. Control panels for synchronous motors have been so simplified that starting is done by push button or by hand operation exactly duplicating that required for squirrel cage induction motors.

A further use for synchronous motors is found in the driving of flat box and suction roll vacuum pumps. These have heretofore been driven by comparatively high speed induction motors through belts, gears or chains. The new practice in Nash Hytor pumps is to overhang the synchronous motor rotor directly on the pump rotor shaft thus eliminating the speed reducing mechanisms heretofore used, conserving space, reducing maintenance costs and improving power factor.

* Paper read at meeting of pulp and paper mill specialists at Schenectady, N. Y., Oct. 6, 1926.

A news mill contains pumping equipment for handling 2,000 tons of liquids for every ton of paper produced, hence much attention is paid to this great power requirement. Reciprocating pumps seem to have almost entirely disappeared from the modern mills and the great variety of quantities, heads and consistencies are all handled by centrifugal pumps mounted on common bases with direct connected motors. More attention is being given to the selection of pumps and motors to suit heads and quantities for it has been found by careful survey that here is a place for practicing economy. Once in place the unit may look all right and it may be doing the work satisfactorily, but at the same time the duty may be far from the best and the pump and motor might do for the same power cost. More care is therefore being given to piping, to the efficiency curves of the pumps and to load conditions on the motors.

Passing of Back Line

The passing of the back line and the adoption of sectional paper machine drive is of great interest and importance. This phase is being covered by another paper at this meeting, hence only certain related matters will be mentioned here.

Motor driven fans and blowers as auxiliaries to paper machines are finding more and wider use. The superheating of ceilings over the dry end of paper machines to prevent condensation and dripping takes a number of large motor driven blowers. They take air through steam coils and distribute it between the false ceiling and the roof. Hot air is also distributed across the under surface of the ceiling to insure under-saturation of the moisture laden air on its way from the driers to the ventilators. An older mill recently visited was characterized by a profusion of large rain drops falling over the whole area from the last press to the finishing room partition though the outside temperature was only 52 degrees Fahrenheit.

Trimmings from the slitter and rewinder are now blown directly to the broke beater by motor driven fans while wet broke is conveyed in drop-side boxes by means of storage battery elevating trucks. The boxes are on skids so that the elevating truck can run under them. At the beater, the box is raised so that the bottom is flushed with the edge of the beater, the side is opened and the wet broke is discharged into the beater. These items greatly reduce labor cost for handling broke.

Calender stacks are now fitted with motor operated calender roll lifts with push button control. Reels and rewinders are served by motor operated cranes so arranged as to insure horizontal lift on the rolls and parallel motion during the transfer. Huge electric cage cranes now span machine rooms for the quick and easy servicing of the paper machines.

The electric steam generator is comparatively a newcomer among paper mill applications of electricity and it has readily found an economic place. Where power is purchased, the electric steam generator serves to fill in what would otherwise be valleys in the power consumption curve, thus relieving the boiler plant of a considerable load at times, and usually carrying all the load Sundays and holidays. Excess water power at mill-owned sites is in some places converted into steam by means of the electric steam generator and coal is thus saved, often at points where it is very expensive.

Electricity has now come into common use in connection with flow meters as the means of transmitting readings from the point of measurement to a convenient point of observation. The installation and intelligent use of such flow meters are important steps in effecting mill economies by stimulating effort and by making it possible to analyze costs.

Hydro Electric Stations

Within the last few years many paper mill hydro-electric stations have been built to better utilize the power available. In one case a 45,000 kw. plant was built by a paper manufacturing company which sells all the power to a public service company. This is done to make use of what would otherwise be a dormant site and the proceeds offset the purchase of power for other mills of the same company. A mill on a stream where there is a seasonal excess of water has installed a "high water generator" which operates synchronous motor driven grinders seven miles away. The resulting pulp is dry stored against the lean season, thus storing up for future use water power that would otherwise be wasted. The conversion of what were directly used water powers to hydro-electric plants is progressing among paper mills in many widespread localities, enabling them to put more horse power directly into production work than was the case before conversion.

Electricity may be said to have found its way into every paper mill operation. A recent advertisement said: "If your wife is doing work that can be done by a small motor, she is working for 3 cents an hour!" With a mark of 1300 kw. hours and fourteen man hours per ton of news to shoot at, it might be said: "If you are not making full use of electricity you are paying some of your men five hundred times too much."

Industrial Research Laboratories in the U. S.

The continuing demand for a new edition of Bulletin No. 16 of the National Research Council which contains a list of Research Laboratories in Industrial Establishments of the United States indicates that this list apparently fills a certain need in the industrial world, and confronts us with the fact that the material assembled in 1921 is five years out of date and should be revised at this time.

It is undoubtedly true that since 1921 a large number of industrial concerns have established research laboratories. It is also probably true that the 1921 list does not contain a complete roster of the firms which had laboratories at that time. In order that the new list may be as complete as possible we are appealing to the readers of this journal who are connected with firms now maintaining research laboratories to send us a post-card giving the name and address of the firms with which they are connected. Questionnaires will then be sent to these firms.

The value of such a compilation lies first in its accuracy; second, in its completeness. The completeness of this compilation can be assured only by the cooperation of those in immediate touch with the various laboratories which should be included.

Please address your post-card to the Research Information Service, National Research Council, B and 21st streets, Washington, D. C.

Rub Tests on Surface Sized Paper

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., October 12, 1926.—A series of wet rub tests have been made on experimental and commercial surface sized and after treated papers by the Paper Laboratory of the Bureau of Standards.

These have shown, it is said, that considerable variations exist in the resistance to wet rubbing of different parts of the same lot of paper. Such variations may be due to irregularities in the paper, the experts say (including the rosin sizing) or to non-uniformity of the glue surface sizing. In some papers a marked "two sided" effect was noticed, that is, one side of the sheet had a higher resistance to wet rubbing than the other.

Papers for TAPPI Annual Meeting

The Annual Meeting of TAPPI will be held in New York, February 21 to 24, 1927. Members desiring to present papers are advised that the manuscripts should be in the hands of the secretary by January 1, 1927, in order to ensure them a place on the program. For photographic illustrations glossy prints should be supplied and for diagrams black India ink should be used on white tracing paper or linen.

Types of Paper Machine Drive and The Essential Requirements

By H. W. Rogers, Industrial Engineering Dept., General Electric Company

The paper machine has been given a surprising amount of attention during recent years, especially with reference to the drive and while much has been learned since the dawn of the sectional drive, the topic has by no means lost its interest nor has it been exhausted.

Probably more thought has been given to the drive during the past six years than to the machine itself, but the pendulum has begun to swing back and all indications point to an era of improvements in the machine itself.

Even the mechanical drive with its long line shaft has received its share of attention and while the present types are far superior to those used a generation ago, they are admittedly out of the race where high speed machines are involved.

The essential requirements of any paper machine are the same, regardless of the type of drive used, i.e., the speed of the machine as a unit must be held constant to preserve a uniform quality and a uniform weight of product; the speed of the various sections of the paper machine with respect to each other must be held constant within very close limits to prevent breaking the sheet; each section must lend itself to starting, stopping and slow speed operation without respect to the other sections of the machine.

Two Classes of Drives

Paper machine drives may be divided into two classes:

1.—The mechanical drive with steam engine, steam turbine or electric motor as the prime mover.

2.—The sectional electric drive.

The first class includes the bulk of paper machines in operation today and may be divided into a number of groups classed according to the prime mover used.

1.—A constant speed steam engine with either stop cone pulleys, tapered cone pulleys or other mechanical speed changers.

2.—A geared turbine of either the constant speed or variable speed type.

3.—An electric motor either direct connected or bolted to the back line shaft of the paper machine.

Under this class may be included:

A.—The slip ring induction motor.

B.—The brush shifting a. c. commutator type of motor.

C.—The direct current adjustable speed motor.

The mechanical drives included under Class 1 have always been considered as the most simple type of drive, probably because they are mechanical and more readily understood but I confess to a feeling that they are more complex than any sectional electric drive that was ever built, and require considerably more attention.

The constant speed steam engine with mechanical speed changer or the variable speed steam engine represents the great mass of paper machine drives and its greatest criticism is due to its inefficiency and its inability to hold a constant speed. However, the fact that it is so strongly internched in the field and subject to so little criticism leads one to believe that the rigid requirements imposed on electrical manufacturers during recent years are not absolutely essential to successful operation.

A number of geared turbines have been installed with mechanical drives, eliminating the electrical link between the turbine and the mechanical drive, and while these units are operating successfully both as constant speed and adjustable speed prime movers, it is not always possible to obtain a steam balance and this fact prevents a more universal application.

Single Motor Drive

The single motor electric drive is still a popular drive and is confined almost entirely to the direct current motor with a direct current generator and voltage control on a combination of voltage and field control. This type of drive, apart from the mechanical back line with its adjuncts, is undoubtedly the most simple electrical drive available and until recent years has met all of the requirements. However, the demand for extremely close speed regulation on the sectional electrical drive has been more or less coincident with a similar demand on single motor drives and the use of voltage regulations or some form of speed regulation is now essential to satisfy the demands.

Both types of regulators have been furnished extensively but while the use of voltage regulators on both the exciter and generator of a single motor drive improve the regulation, they do not take into consideration the inherent speed regulation of the motor nor do they correct for it. The speed regulator, on the other hand, maintains a constant speed within very close limits regardless of the inherent regulation of fluctuations in generator voltage, regardless of fluctuations in generator voltage. For this reason, I am rather inclined to favor the use of a speed regulator. In addition to this feature it will permit of wider variations in speed by voltage control than you can ever hope for in the voltage regulator. Both types of regulators are necessarily expensive, but this expense is partially offset by the use of compound field rheostats rather than the compound compensating type, which was necessary when no regulator was used.

Mention has been made of the slip ring induction motor for paper machine drives, because several such installations are in existence but it, nevertheless is a misapplication and can never give successful operation except possibly on a constant speed machine and even there it is subject to variations in frequency. Its use is not recommended under any conditions. The BTA alternating current commutator motor has been used more extensively on the continent than here, and while the present installations in America have been successful, they have been confined to motors below 50 horsepower. This type of motor has a speed regulation comparable to the direct current motor at full speed, but does not compare favorably with it at the reduced speeds, although this difficulty may be corrected by the use of a speed regulator that acts directly on the brush mechanism. As stated above, our past experience has been confined to small capacity motors, but it is hoped that it will soon be available in the larger sizes and open up a very interesting field of application.

The sectional electric drive mentioned under Class 2 stands alone as a distinct type and has always been looked upon as expensive and complicated. To be sure it has a multiplicity of electrical units and is 100 per cent. electrical and, therefore, not understood by the ordinary millwright who has spent years in maintaining mechanical drives.

I have already hinted at the complexity of the mechanical drive and it is only necessary to consider the long lineshaft with its bearings, counter shafts, pulleys, belts, nitre gears and clutches to catch a glimmering of my remark. They are oily, dirty, dangerous, space hogs and under the most favorable conditions invite an apology for their appearance. I am not criticising the millwright or the machanical engineer who designed these drives, because some of them are masterpieces of a worthy craft. They met the need of the day and must give place to a better method.

Inherent Advantages

The inherent advantages of the sectional electric drive over any other type of drive will always justify its use. The chief difficulty in comparing a sectional drive with any type of mechanical drive has been in neglecting to take the backline shaft into consideration and merely comparing the cost of the electrical equipment. The backline shaft is, of course, eliminated in the

* Paper read at meeting of pulp and paper mill specialists at Schenectady, N. Y., Oct. 6, 1926.

sectional drive but it is a very essential part of any single unit mechanical drive and therefore its cost must enter into any comparison.

A mechanical drive will vary in cost with the number of sections on a machine and with the width of the machine but is somewhat independent of the speed. Figures obtained from some of the manufacterers seem to indicate that the back line shaft with its bearings, cone pulleys, jack shafts, miter gears, clutches, etc., neglecting the prime mover, cost from $2500 to $3000 per section for an average paper machine.

With these figures as a basis, an interesting comparison may be made.

1—A seven section cylinder type of paper machine operating at 100-300 fpm.

A. Backline shaft	$17,500
B. Single motor, direct-connected type	4,900
C. Generator unit and control	8,500
	$30,900
Operating Cost—	
Interest at 10%	3,090
Maintenance at 30 cents/ton	2,250
	$5,340

1-A—A seven section cylinder type of machine operating at 100-300 fpm.

A. Section drive including gears, control, etc.	$25,000
B. Generating unit and control	9,300
	$34,300
Operating Cost—	
Interest at 10%	3,430
Maintenance at 5 cents/ton	375
	$3,805

In both of the above cases a synchronous motor generator set is used and the labor item is assumed to be the same,, consequently this item has been neglected.

The difference in operating cost of $1535 in favor of the sectional drive may be capitalized at $15,350 and would indicate that it is possible to invest $49,650 in the sectional drive and still break even with the mechanical drive.

It may be argued that the cheapest form of drive is the mechanical drive with steam engine or turbine. This is true but the comparison still favors the sectional electric drive as will be seen from the following data:—

2—A seven section cylinder type of paper machine operating at 100-300 fpm.

A. Back line shaft	$17,500
B. Steam turbine and gear unit	6,500
	$24,000
Operating Cost—	
Interest at 10%	2,400
Maintenance at 30 cents/ton	2,250
	$4,650

2-A—A seven section cylinder type of paper machine operating at 100-300 fpm.

A. Sectional drive including gears, control, etc.	$25,000
B. Turbine generator unit with control	13,000
	$38,000
Operating Cost—	
Interest at 10%	$3,800
Maintenance at 5 cents/ton	375
	$4,175

In this comparison the difference is not so great because of the lower cost of the mechanical drive and the higher cost of the sectional drive incident to the use of a turbine generator set. However, an additional cost of $5750 would still be justified in the sectional drive.

On higher speed paper machines this comparison still holds good but owing to the increased tonnage a greater saving may be made.

3—Comparison of drives for a nine section fourdrinier machine operating at 200-600 fpm.

A. Back line shaft	$27,000
B. Single motor electric drive with motor, motor generator set and control	17,500
	$44,500
Operating Cost—	
Interest at 10%	$4,450
Maintenance at 30 cents/ton	4,500
	$8,950

3-A—Sectional drive with gears, motors, control and motor generator set $45,000

Operating Cost—	
Interest at 10%	$4,500
Maintenance at 5 cents/ton	750
	$5,250

Here the difference of $3700 in favor of the sectional drive may be capitalized at $37,000.

In all of these comparisons the moderate speed geared motor, such as we have furnished on seven paper machine sectional drives, has been used but only those advantages which lend themselves readily to a monetary value have been mentioned. There are other recognized advantages such as increased production and a more uniform product which are the direct result of closer speed regulation between section and a more uniform speed of the machine as a whole. Cleanliness, a saving in space, greater flexibility of control, neat appearance and safety to operators are other features which cannot be overlooked when considering the drive.

Having justified the sectional electric drive a few of the more important features of it may be of interest.

1. Full Automatic Control, including
   1. Starting
   2. Stopping
   3. Slow speed operation obtained by push buttons mounted on each section, front part of machine.
   4. Complete protection
   5. Motor operated "draw" adjustment, from front side of machine.
2. Unit Switchboard Control Panel
   1. All control boards, including generator, voltage regulator, machine motors, and rewinder control, mounted as a single switchboard.
   2. Indicating meters for all motors and generator furnished as part of the standard equipment.
3. Simplicity
   1. Control panels all mounted in one place.
   2. Each motor, with its speed regulator, a complete unit in itself mounted on one base.
   3. No apparatus in machine room but motors and control buttons.
   4. Every piece of apparatus readily accessible.
   5. A minimum of parts insuring low maintenance.
4. Minimum Space Requirements
5. Simplest Form of Regulators
   1. Minimum of moving parts.
   2. 450 operating points.
   3. Vernier rheostat adjustment.
   4. Remains stationary except when load change demands movement.
   5. Does not alter motor field when disconnected from circuit. Motor continues to operate at same speed as when regulating.

I have made reference to an era of development in the paper machine. This probably started with the suction couch which has undergone many changes and now appears without the use of a gear reduction.

There is a concerted effort to reduce the friction losses in the machine as is now evidenced by the extensive use of ball or roller bearings on practically all sections of the paper machine except the driers and calender.

The use of self-aligning oil ring bearings on the driers and calenders has done much to improve the friction loss and this modification has gone hand in hand with a higher grade of bearing lining and journal, but there is still much to be accomplished in this direction.

The appearance of the worm gear driven driers has been another step in the recent development and we now hear of chain driven driers. This last arrangement appears to be good and results are awaited with keen interest.

There are, however, other features which are worthy of attention and mean much to the paper manufacturer.

For instance, every couch is equipped with suction boxes on the wire and on the average machine the friction due to these boxes amounts to 30-50 hp. or approximately 360,000 kw.-hr. per year. The elimination of this friction means an enormous saving to the industry, not only in power consumed but also in money saved due to the longer life of the wire.

Water in the driers is extremely annoying, requires power to keep in motion and undoubtedly has an effect on the efficiency of drying. This difficulty suggests a possible improvement in the evacuation system.

Not all of the difficulties experienced in paper making are due to the electrical equipment; there are a thousand and one things that can happen to the machine itself or to the process but the development of a consistency regulator that will perform its function would eliminate a large part of them.

It has been extremely interesting to watch the developments that have taken place in the paper industry during the last five years and I have often wondered what the next decade will bring forth. The possibilities are great and with a hearty cooperation between the paper manufacturers, the machinery manufacturer and the electrical manufacturer there is no limit to the possibilties of the future.

Forest Research Institute Dehra Dun Paper and Pulp Section

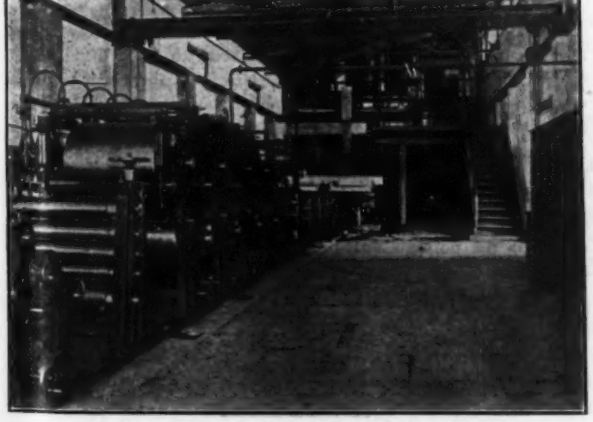
By Tekumalla Venkajee, B. A. Rajahmundry, India

It has been anticipated on the Indian continent that the supply of wood for paper pulp is decreasing and its insufficiency is assuming an acute state. More than this, the utility of wood for other purposes has been more and so the quantity of wood that is profitably available for paper making is very little. Besides the demand for wood has therefore outrun the supply. In many places the forests are destroyed and so it has come to the stage that expansion in woodpulp production, if desired, must seek its supplies at greater distance and at increased cost. This state of affairs have given a necessary impetus for unlocking the secrets of Nature to find a raw material useful for paper making that is not quite so valuable for other purposes and of which the supply should at least equal its consumption.

Bamboo

In the very early seventies, bamboo was thought of as a suitable material and experiments were carried out with successful results by the late Thomas Routledge, well known as the successful pioneer in the use of esparto grass. More encouraging were the results of experiments carried out on an elaborate scale by R. W. Sindall in 1905 at the instance of the Government of India. Later in 1909, necessity for a thorough investigation into the subject of bamboo was felt and the Government of India handed over this study to the officers of the Forest Research Institute, Dehra Dun. The chemical aspect of the inquiry was studied in 1910 at Allahabad. Thus far the labors of Chutterbuck and Pearson have been supplemented by commercial tests on bamboo in some paper mills in India. The uncertainties on the forestry side have been largely cleared up by Mr. Pearson's work.

Considerable advance work had been made in digestion and bleaching by the predecessors of William Raitt in this field and thus Mr. Raitt has only to tackle the most knotty problems regarding bleaching and digestion. He has studied the subject



SEMI COMMERCIAL EQUIPMENT

for over 10 years and has been able to show to the world that all the doubts entertained by his predecessors regarding bleaching and its low yield and the question of the pulping of the "nodes" etc., could easily be eliminated by his system of "fractional digestion." But he did not like to stop the problem there but went on further into the economic aspect of the question—how it would compete with wood pulp. So he found it necessary to conduct experiments on an industrial scale and for this purpose the Government of India sanctioned the purchase of a pulp and paper plant.

One of the accompanying photographs shows the outer view of the Paper and Pulp Section and the other shows the machinery inside from the digesters to the paper cutter, that was installed at Dehra Dun in 1923, the cost of which amounted to £12,500. The machinery was imported from Scotland from Messrs. James Bertram & Son, Ltd., Leithwalk, Edinburgh. The plant is capable of dealing with 20 tons of raw materials a week, which is large enough to demonstrate on a semi-commercial scale as distinct

PULP AND PAPER SECTION

from laboratory methods, as a preliminary to a full plant operation.

The Plant

The preparatory plant consists of a set of crushing rolls and a cutter to reduce the raw material (bamboo) to pieces of one to two inches long. The raw material is taken in bags, weighed, and then loaded in the digesters. There are two digesters, capable of working with alkaline liquors, either on the "overhead" or the "fractional" systems at a steam pressure of 120 pounds per square inch. Each digester has a capacity of one ton of raw material and is connected to a set of four diffusers for washing out the spent digestion liquors.

The pulp thus washed in these leaching vessels is taken to a beater of a capacity of 450 pounds of pulp and fitted in such a manner that it can be used as a washer and a bleacher as well. There is also a stuff chest fitted with agitators. The pulp is then run on to the strainers or screens—one for pulp and the other for paper. Then we come to the paper machine that makes a sheet 35 inches in width on a fourdrinier wire frame, two pairs of press rolls, eight drying cylinders, a stack of five calender rolls and a sheet cutter.

The whole is driven by a 60 hp. Robey engine and there are arrangements for measuring the liquor, steam consumption, etc., and a paper sizing plant. The capacity of the whole, if worked continuously, is about 2½ tons of raw material and 1 ton of product per 24 hours.

Investigations

The raw material is first subjected to laboratory tests for its cellulose yield and the consumption of soda.

Then to arrive at the probable factory yield of bleached pulp, the cellulose is subjected to the hydrolizing action of strong caustic soda, which reduces the non-resistant and non-fibrous cellulose to a soluble condition. The residue after bleaching represents approximately the factory yield of bleached pulp which might be expected.

The raw material, if found good, in the laboratory tests, is

then subjected the autoclave treatment the chief objects of which are to ascertain the probable factory yield of unbleached pulp, and the minimum factory requirements of soda, temperature and cooking time.

The pulp thus produced is then subjected to microscope examination to record the dimensions and characteristics of the ultimate fiber. Thus with the help of the results obtained in the laboratory and by the autoclave treatment, definite data for digestion will be arrived at and with them, the operations on the factory scale are started and the yield of pulp and paper are estimated under the following heads: Unbleached pulp, bleached pulp, paper.

Conclusion

A considerable part of the activities of this section lies in the exploration, in conjunction with the District Forest officers, of forest areas regarded as suitable for exploitation by the paper industry. The manufacturing facilities and transport problems associated with the raw materials are fully explored and reported on, to the local governments concerned. Such a report has already been published by the Bihar and Orissa Government, "Cuttack Bamboo Pulping Project." A similar scheme in the Tinnevelly Hills is now under consideration in conjunction with the Chief Forest Engineer to the Government of Madras and an exploration of the Kasalong area near Chittagong led to a number of concessions by the Government of Bengal, which has resulted in the establishment of a bamboo paper mill near Calcutta and also the Carnatic Paper Mills at Rajahmundry, using bamboo as their staple raw material.

The writer of this article has had the honor of being a student for some time in the Paper Section under the able guidance of Mr. William Raitt, F.C.S., M.I.Chem.E., in the special study of cellulose chemistry with reference to bamboos and grasses.

Problems In Patent Coated Board

Special Inquiry No. 57

The problem is one of getting a well finished board for lithographic work and at the same time preserving the necessary sizing quality.

Manufacturing Conditions

1. Raw Material—Liner
   - (a) Sulphite pulp—Bleached and easy bleaching
   - (b) Hard shavings
   - (c) Coated blanks
   - (d) White asbestine filler
   - (e) Starch, rosin size, alum, color (tinting blue)

   Other vats are furnished with unsized overissue news.
2. Mechanical Treatment
   - (a) Liner—Beaten approximately one hour, roll raised about an inch from bedplate. Through two medium sized Horne or Emerson jordans, plug set fairly hard.
   - (b) Filler—Beaten sameway as liner, long enough to disintegrate news stock. Through one large Horne jordan, plug set just enough for thorough brushing out.
3. Sizing
   - (a) Size used per 1,200 pound liner beater—24 to 36 pounds or 2 to 3 per cent, dry basis.
   - (b) Alum used per 1,200 pound liner beater—36 to 54 pounds or 3 to 4½ per cent.

   Hydrogen ion concentration—no records.

   Time elapsed between size and alum addition, and appearance of stock at machine—1½ to 2½ hours.
4. Temperatures (average)—Liner Stock
   - (a) In beaters—80 to 110 degrees F.
   - (b) After jordans—90 to 115 degrees F.
   - (c) At Paper Machine—60 to 90 degrees F.
5. Finishing

   The calenders consist of a breaker stack of five rolls, and two finishing stacks of seven rolls each. Two water boxes are usually used on the top liner surface, one on each of the first two stacks.

The proposition is this: No matter how carefully the sizing in the beaters is carried out, the board produced is at best only indifferently sized, and hence of inferior quality for lithographic work.

Increased quantities of size were first tried, with careful regulation of temperatures in beaters and jordans, in an effort to correct the trouble. It was found, however, that although samples taken at these points showed excellent sizing, the finished board from the machine was not noticeably better. Directly before the calenders the sizing was equal to the samples taken from the beaters and jordans, so that it was evident that the crushing action of the calenders on the liner was the factor injuring sizing quality. When the liner was peeled off, it was further evident that the sizing on the outer surface only, was injured, as the under side of the liner retained its sizing value.

At the same time two other undesirable features were noticed to be introduced, or at least intensified, by the calendering operation. First, the bond of the liner to the body of the sheet was impaired to a great extent. Second, while the calendering ironed out the comparatively rough surface coming from the driers to a high degree of smoothness, it broke down the interlacing of the surface fibers so that friction applied to the surface loosened up the fiber ends to form a slight "fuzz," undesirable for printing purposes.

All three of these bad features—poor sizing, poor bonding and injured surface fiber structure—are of degree, as would be expected. This can be shown by varying the amount of calendering, or following the progressive effect from stack to stack. Therefore, the most direct solution, evidently, is to produce a board that will need a minimum of calendering to give it the smoothness desired.

The factors of poor bonding and injured surface fiber formation are merely side observations, but seem to vary, usually, with the degree of injury to the sizing. However, there are occasions when there seems to be no noticeable relation. By "injured surface fiber formation" is meant the tendency of fiber ends to be loosened when friction is applied to the sheet surface, even though the apparent finish may be good.

On lighter weights of board run recently, with the water box on second stack only, considerable improvement was made in the sizing of the finished board. On heavier weights, however, the elimination of one water box appears to be hardly feasible.

The responses to this inquiry will be copied in blank, and the report sent to all who contribute. Send discussions to

W. G. MACNAUGHTON, Secretary, TAPPI,
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October 18, 1926.

New Terry Turbine Bulletin Issued

An attractive bulletin, profusely illustrated, describing the Terry Multi-Stage machines, which are built in sizes up to about 2,000 hp., has just been issued by the Terry Steam Turbine Company, of Hartford, Conn. Descriptions are given covering the various types together with the factors that govern their use. Typical installations are cited which illustrate a few of the many possibilities of securing low cost power as a by-product of process steam.

Current Paper Trade Literature

Abstracts of Articles and Notes of Papermaking Inventions Compiled by the Committee on Abstracts of Literature of the Technical Association of the Paper Making Industry

Clarence J. West, Chairman

Raw Materials

Woods from Nigeria as Paper Making Materials. Bull. Imp. Inst. 24, 8-14 (1926). Analysis of (1) Abura (*Mitragyna nacrophylla*), (2) Afara (*Terminalia superba*), (3) Oro (*Irvingia barteri*), (4) Arere (*Triplochiton nigericum*) and Ogia (*Daniella ogea*) (two planks of somewhat different appearance and analysed separately) gave the following results:

No.	Moisture	Ash	Cellulose		Ultimate Fiber Length		
			As rec'd.	On dry basis	Minimum	Maximum	Average
1.	12.3%	1.3%	45.7%	52.0%	1.0 mm.	2.1 mm.	1.6 mm.
2.	10.5	2.2	46.2	51.6	0.9	0.9	1.2
3.	10.3	1.7	43.7	48.8	0.8	2.5	1.5
4.	9.7	1.3	45.0	50.0	0.9	2.1	1.4
5.A	9.7	0.4	42.4	46.8	0.7	4.0	1.5
5.B	11.2	2.8	42.8	48.2	1.0	2.1	1.5

The results of pulping tests which furnished the best results in each case were as follows:

No.	Caustic Soda Used		Cooking		NaOH consumed per 100 parts of wood	Yield of Dry Pulp	
	Per 100 parts of wood	Per 100 parts of solution	Time in hours	Temp. 0°C.		Unbleached %	Bleached %
1.	20	4	6	160	11.9	37.0	35.5
2.	24	4	6	160	14.2	41.0	37.0
3.	24	4	9	170	15.6	37.0	32.0
4	24	4	6	160	13.5	44.0	38.0
5.A	24	4	6	170	16.8	34.5	31.5
5.B	24	4	6	170	14.5	39.5	33.5

In every case bleaching was difficult, required a large bleach consumption, and did not give a good white.—A.P.-C.

Chemistry of Wood. VIII. Further Studies of Sapwood and Heartwood. G. J. Ritter and L. C. Fleck. Ind. Eng. Chem. 18, 576-577 (June, 1926). In softwoods, the water, ether and alkali extracts are higher in the heartwood than in the sapwood, and the cellulose and lignin and correspondingly lower in the heartwood (except in white spruce, in which cellulose-lignin content is approximately the same in the two bands of growth.) On the basis of water, ether, and alkali extractives, hardwoods are divided into two groups: (a) those with high extractives in the sapwood, and (b) those with high extractives in the heartwood. The former have low cellulose in the sapwood, the latter low cellulose in the heartwood. Acetic acid by hydrolysis is higher in the sapwood than in the heartwood of all the woods.—A.P.-C.

Chemistry of Wood. IX. Springwood and Summerwood. G. J. Ritter and L. C. Fleck. Ind. Eng. Chem. 18, 608-609 (June, 1926). A higher percentage of lignin was found to exist in springwood than in summerwood. This is due to the fact that the middle lamella, which constitutes a greater proportion of the total wood substance in the springwood, consists largely of lignin, with very little, if any, other substances present. Cellulose forms a larger percentage of the total wood substance in summerwood than in springwood.—A.P.-C.

Paper Making Woods and Their Substitutes. A. Berges. L'Industie Papeterie 5, 145-53 (May, 1926). This is an abstract of a 600 page report presented at the Forestry Congress, held at Grenoble in 1925, in which the author analyses the forest resources and requirements of the principal paper making countries, and the possibility of using tropical woods and of increasing the use of other fibers such as cotton linters, flax straw, cereal straws, esparto and bamboo.—A.P.-C.

Sabai Grass. Tekumalla Venkajee. Paper Trade J. 82, No. 22, 54 (June 3, 1926). The average cellulose content on the dry basis is 48%, of which 80% is resistant or alpha-cellulose. Laboratory cooks for 1 hr. at 60 lbs. and then for 2 hrs. at 40 lbs. (making a total of 3 hrs.) with 15% of caustic soda at a concentration of 6%, gave a yield of 40.6% of unbleached pulp with a consumption of 10.5% of caustic soda. With 5% of bleach it gave 37% of "full white" pulp. With Raitt's system of digestion the yield of bleached pulp is practically the same, the bleach consumption is reduced to about 2.5%, and the color is "brilliant white." Sabai grass compares well with esparto as a paper making material.—A.P.-C.

DeInking Paper Stock. J. E. Plumstead assignor to The Jessup and Moore Paper Co. U. S. pat. 1,576,994, Mar. 16, 1926. Macerated stock is agitated with alkali, e.g., soda ash, chlorine is introduced, and the mixture is then cooked.—A.P.-C.

Methods of DeInking Old Papers. Alfred Bryant. Paper Mill 49, No. 23, 56, 70 (June 5, 1926); Paper Trade J. 82, No. 23, 63-64 (June 10, 1926). Brief discussion of various de-inking processes.—A.P.-C.

Cellulose-Lignin

Contribution to the Constitution of Spruce Wood Lignin. III. Peter Klason. Technical Association Papers Series IX 98-100 (June, 1926). After the alpha-lignin has been precipitated from 3 liters of fresh sulphite waste liquor by 60 g. of beta-naphthylamine hydrochloride and removed by filtration, the liquor is concentrated at 30° C. to about 1 liter and the sulphuric acid removed quantitatively by means of barium chloride. After further concentration the calcium salt of the beta-ligninsulphonic acid may be precipitated with methyl hydrate. After reprecipitation of the salt, the salt is precipitated by naphthylamine and extracted with water until no trace of chlorine is present. This then analyzes for $C_{20}H_{22}O_7.H_2SO_4.2C_{10}H_7NH_2(C_{20}H_{22}O_{10}N_2S)$, which differs by two oxygen atoms from the first formula proposed. The hypothesis is advanced that the beta-lignin results through the condensation of 1 molecule of coniferyl aldehyde with 1 molecule of caffeic acid. In an attempt to synthesize coniferyl aldehyde from vanillin, acetic acid and 10% caustic soda, a small amount of an amorphous product was obtained which is considered as a dimeric coniferyl aldehyde and is believed to be identical with hemiacrolein-lignin, a term applied to lignin which has been treated with alkali and which is insoluble in sulphite liquor. The same compound appears to result from the oxidation of coniferyl alcohol. In one experiment in which the alcohol was prepared by means of emulsion, and allowed to stand for some time, a powder separated which, when cooked with sulphite liquor and then precipitated with naphthylamine, gave a product apparently identical with aerolein-lignin.—A.P.-C.

Use of Acid Hydrolysis in the Determination of Lignin. L. Paloheimo. Biochemische Zeitschrift 165, 463-4 (1926). Instead of concentrated hydrochloric acid of cellulose 70 per cent sulphuric acid may be used. If the hydrolysis is incomplete, upon dilution of the acid solution, a carbohydrate precipitates, giving high values for lignin. If the hydrolysis is too prolonged, humus substances are formed, also giving high values for lignin. Therefore, after hydrolysis for one-half hour, the solution containing lignin is filtered and the hydrolysis continued. Some of the proteins of hay and straw hydrolyze with difficulty, so that a determination of nitrogen upon the lignin fraction should be made and the amount of protein present subtracted from the lignin fraction to give an accurate value for lignin.—C.J.W.

Fermentation Products from Cellulose. H. B. Speakman. Pulp and Paper, 24, 731-735 (June 24, 1926). Utilization of the pentose sugars and galactose by the butyl alcohol-acetone producing organisms depends on the concentration of the sugar solution, and also on the nature and relative proportions of the sugars present in the medium. This fermentation can be divided

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into two distinct parts: (1) vegetative reproduction and acid production; (2) acetone and butyl alcohol production, which is the real fermentation accompanied by cell disintegration and spore formation. Sulphite waste liquor exerts a strong inhibitory or toxic action on the fermentation, which action is considerably reduced by preliminary neutralization of the acidity of the liquor. The toxicity of the liquor is exerted largely on vegetative growth; and by delaying the addition of liquor to the fermenting mixture until after this stage is past, up to about 5% of sulphite liquor sugar can be added to maize mash and a normal yield of butyl alcohol and acetone may be obtained from this additional sugar. The toxic material present in sulphite waste liquor is present to some extent at least in the original wood.—A.P.-C.

Synthesis of Cellulose and the Problem of Life. Aime Pictet. Papeterie 48, 474-483 (May 25), 521-526 (June 10, 1926). The author considers that all the essential constituents of living cells are aliphatic compounds, while the unessential ones may be cyclic. The cyclic compounds are regarded as by-products of metabolism. In plants where the excretion of harmful substances is impossible these are made atoxic by conversion into cyclic compounds, such as alkaloids, etc. Cellulose, which would appear to be a stumbling block to this hypothesis, inasmuch as it is commonly regarded as a chain compound but certainly does not participate greatly in metabolism, is placed among the cyclic compounds. That it is cyclic is indicated by the fact that when distilled in vacuo at a temperature of about 450° C. tar composed of cyclic compounds is obtained. This tar cannot be formed from aliphatic compounds at this temperature, but must arise from cellulose itself which is, therefore, a cyclic substance.—A.P.-C.

X-Ray Investigations on Cellulose. R. O. Herzog. Pulp and Paper 24, 694-699 (June 17, 1926); Paper Trade J. 83, No. 1, 51-44 (July 1, 1926). X-ray investigation has shown that cellulose is composed of minute crystals lying beyond the range of microscopic visibility, and that it exhibits the same X-ray interference phenomena as found with crystalline substances. The data obtained in the course of numerous experiments indicate that mature cellulose belongs to the rhombic system of crystal symmetry; and it has been possible to calculate the length of the edges of the crystallographic cell, and also to calculate that the unit cell contains four $C_6H_{10}O_5$ groups. Cellulose acetate contains 16 of the $C_6H_7(C_2H_3O_2)_3O_2$ groups in the cell unit, and nitrated cellulose contains 32 of the $C_6H_7(NO_3)_3O_2$ groups. The results given would make it seem probable that the crystals of the grown cellulose are under tension along the fiber axis. Though the chemical assumption that all the glucose groups may be attached glucosidically to one another is not excluded, yet this is not considered likely, and it seems more probable that a number of $C_6H_{10}O_5$ groups are linked together according to Werner's theory of secondary valences. Researches on the infrared absorption spectra of cellulose using fluorite-dispersion, carried out recently, indicated that it is unlikely that a change takes place in the chemical constitution of the cellulose during mercerization.—A.P.-C.

Recent Developments Relating to the Colloidal Characters of Cellulose. R. O. Herzog. Pulp and Paper 24, 699-703 (June 17, 1926). The size of a particle in a colloidal solution of cellulose nitrate in acetone, methyl ethyl ketone, or other solvents, as calculated by the coefficient of diffusion according to Einstein's equation ($D=RT/N6\pi\eta r$, where D is the coefficient of diffusion, r the radius of a particle, η the coefficient of viscosity and $N=6.1\times10^{23}$) does not differ markedly from that found by means of X-ray analysis; and since the difference in size between the crystallites of cellulose and those of cellulose nitrate (or acetate) is small, it is possible to calculate from the rate of diffusion of dissolved cellulose the size of crystallites in the cellulose fiber. The coefficient of diffusion was determined by Ocholm's method (Z. physik. Chem. 50, 309, 1905). The diffusion method gives an insight into the homogeneity of the dissolved material, as well as giving the average size of the particles; purified hemp was found to be a practically homogeneous cellulose, while hydrocellulose behaved like a mixture. The size of cellulose acetate particles varies with the solubility of the ester, but no quantitative conclusion could be drawn owing to the effect of other factors. Beating hemp for 4 hr. reduced the particle diameter to ½ its original value. When cellulose is exposed to the action of strong caustic soda solution in presence of air the size of the particles decreased continuously with the time of exposure, while if air is excluded the size of the particles rapidly falls to a minimum and then slowly rises again. The author concludes from his results that the cellulose crystallites in the various transformation products are the primary particles, that the number of C_6-radicals of which such a crystal consists does not change during the course of chemical reaction, and that each aggregate remains intact even when by dispersion the structure of the crystallites is disintegrated to a colloidal solution. Certain chemical processes however, e.g., action of oxygen in alkaline solutions, brings about a decrease in particle size. He also concludes that the primary particles may unite to form secondary particles, and that the micellar groupings forming the fibrous structure in mature plants may be considered to consist of such secondary particles. The "ripening" of viscose is considered to be essentially a formation or building up of secondary particles and the various phenomena observed in the process may be explained by the form and size of the secondary particles. In the swelling of cellulose in aqueous solutions of electrolytes, it is considered extremely probable that compounds are formed between the cellulose and the electrolytes; and in the transformation of cellulose into an electrolyte water enters the fiber in three ways: (1) it is attracted by the ions on the surface of the crystalline or colloidal particle on account of its acting as an electrical dipolar substance; (2) it enters the fiber as an envelope of those ions which, by electrostatic forces, are attracted by the ions on the surface of the crystallite or colloidal particles; (3) it is chemically bound to the complex compound formed from the cellulose and the electrolyte. These conceptions are applied to give some insight into the mechanical properties of the cellulose fiber. The author finally formulates the following view of the structure of cellulose fibers: the smallest building units are the crystallites. These form secondary particles, probably held together by means of directed surface forces. In most cases swelling and dispersion of cellulose appear to proceed stepwise; it first undergoes scission into secondary and then into primary particles (crystallites). Under the influence of chemical forces, a further reduction in the size of the primary particles occurs.—A.P.-C.

Sulphite Process

Apparatus for Making Sulphite Liquor. F. J. Babcock assignor to Stebbins Engineering and Manufacturing Co., U. S. pat. 1,576,705, Mar. 16, 1926. In a tower system for making acid sulphite liquor two separate reversible limestone towers and a tank for receiving liquor from either of the towers are combined with means for strengthening the acid liquor in the tank. This consists of a supplementary tank in communication with the first tank for receiving relief gas, and a supplementary limestone tower. Liquor may be circulated through the supplementary tank and tower while gas is supplied to the latter.—A.P.-C.

Recovering Sulphurous Acid and Waste Heat From Sulphite Digesters. C. Hangleiter and A. Schneider assignors to Zellstoffabrik Waldhof. U. S. pat. 1,576,970, Mar. 16, 1926. Hot gas and vapor from the digester are introduced into streaming cold fresh liquor at a point in clise proximity to the digester.—A.P.-C.

Sulphite Digester. J. W. Van Alstyne. U. S. pat. 1,579,261, Apr. 6, 1926. A steam inlet pipe is provided, which projects upwardly through the usual discharge fitting and discharge near the lower end of the concial bottom of the digester, just above the discharge fitting—A.P.-C.

Digester Bricks. A. F. Richter. Paper Mill 49, No. 23, 54

(June 5, 1926). As a result of experiments on the expansion of steel and of various compositions of clay and cement composition, a digester brick has been developed from a mixture of selected clays, in which hard flint is mixed in proper proportion with softer clays, ground to an even fineness and screened, wet to suitable consistency, hand molded, dried fired to a maximum temperature of 2600° F., the total time of firing being 9.5 to 10 days.—A.P.-C.

Sulphite

Problems in the Manufacture of Sulphite Pulp. B. T. Larrabee. Paper Mill 49, No. 23, 18, 20, 58 (June 5, 1926). A plea for cooperation in the study of sulphite mill problems, such as reducing loss of wood through decay, obtaining maximum pulp yields, sulphur burner gas control, method of determining the end of the cook, riffler performance, etc.—A. P.-C.

Manufacture of Sulphite Pulp for Rayon. Mon. Papeterie Belge 6, 335-336 (May, 1926). Brief outline of the properties required of rayon sulphite.—A. P.-C.

Separation of Vegetable Fibers in the Manufacture of Cellulose. Chem. Fabr. Griesheim-Elecktron. Fr. pat. 599, 540, June 15, 1925. Raw fibrous materials are subjected for one or several hours to digestion with alkali sulphites in presence of dilute acid (sulphur dioxide) at temperatures not below 100° C.—A. P.-C.

Chloramine As a Substitute for Iodine in the Sulphite Industry. Rivista Tecn. Sc. Econ. 39, 126-127 (Mar. 15, 1925); Chimie et Industrie 15, 783 (May, 1926). The author proposes using chloramine ($CH_3C_6H_4SO_2NaCl\cdot 3H_2O$) instead of iodine solutions for control tests in sulphite mills. It is used in the same manner and with the same indicators as iodine, and is much cheaper. The ordinary commercial article can be purified by dissolving in hot water, filtering and crystallizing.—A. P.-C.

Sulphite Waste Liquors

Treatment of Sulphite Waste Liquor. A. N. Thomson assignor to Crown Willamette Paper Co. U. S. pat. 1,582,317, April 27, 1926. Sulphite waste liquor, concentrated to a syrupy consistency, is mixed with charcoal or other suitable porous, readily combustible material heated to a temperature above that of the liquor, and the materials are then subjected to reduced pressure to facilitate impregnation of the pores of the added material by the liquor. The product is adapted for use as a fuel.—A. P.-C.

Fluorescence of Sulphite Cellulose Extracts and Its Applications. L. Meunier and A. Jamet. Le Cuir Tech. 15, 166 (1926); Halle aux Cuirs, Apr., 1926, 103. Sulphite cellulose in chestnut extract can be detected by the following method: dissolve 25 grams of Rochelle salts in 100 cc. of water, then add drop by drop, while shaking a 10 per cent solution of neutral lead acetate until the precipitate which first forms is redissolved. Crystals will separate from this solution so it must be shaken before using. Introduce 10 cc. of the solution to be tested into a tube and then add 10 cc. of the lead-Rochelle salts solution. Add a pinch of kaolin, filter and examine the clear, colorless solution in the light of a Wood lamp. A characteristic white-violet fluorescence is produced if sulphite cellulose is present. The test can also be used with extracts of myrobalans, quebracho and mimosa as well as with chestnut. If sulphite cellulose and syntans are both present in the extract it is almost impossible to distinguish between them by this method.—C. J. W.

Alkaline Processes

Esparto Pulp by the "Keebra" Process. James d'A. Clark. World's Paper Trade Review 85, 1522, 1524 (May 7, 1926). At present there are practical difficulties in the way of the recovery of the soda in the full Keebra process (digestion with neutral sodium sulphite); but the recovery is perfectly practical when worked in conjunction with the "Semi-Keebra" process (digestion with caustic soda and neutral sodium sulphite). With wood, the Keebra process requires a pressure of 130 lb. per sq. in., and the Semi-Keebra requires 80 lb., while for esparto these pressures may be as low as 50 and 30 to 40 lb., respectively. Comparative laboratory cooks of esparto by the ordinary soda, Keebra, and Semi-Keebra processes showed the Keebra process gives a 20 per cent increase in yield over the soda process, and the Semi-Keebra about 9 per cent increase.—A. P.-C.

Process of Producing Paper Pulp. E. Lambert and W. E. Matthews. U. S. pat. 1,582,336, Apr. 27, 1926. Groundwood stock is boiled for about 1 hr. in a solution containing 1 lb. of caustic potash dissolved in sufficient water to cover approximately 100 lb. of the stock. The stock is then washed and reground.—A. P.-C.

Pulp Digesters. J. Holmes. Eng. pat. 248,926. In this digester the pulp is digested under superatmospheric pressure. The closed feed reservoir has connection to the steam space and liquid space within the digester. A number of graduated evaporator stages are arranged to ensure a multiple effect and the steam is led through these successively. Heat exchangers between the steam connections transfer the heat to the caustic liquor.—A. P.-C.

Chlorinating Cellulose Materials. A. R. de Vains. Eng. pat. 238,047, June 28, 1924. Ligno-cellulose and similar materials are chlorinated by continuously feeding the pulped materials and chlorine solution to a reaction vessel (which may be lined with an alloy of 70 per cent copper, 15 per cent tin, 5 per cent lead, 5 per cent aluminium and 5 per cent phosphorous, which is resistant to chlorine). The rate of supply of the materials is varied according to the degree of chlorination desired. An apparatus is provided in which the supply of chlorine solution is regulated by the pressure within the reaction vessel and the rate of supply of cellulosic pulp is regulated by the quantity of material discharged from the reaction chamber.—A. P.-C.

Black Liquor

Recovery of Soda From Solutions Used in Paper Manufacture. W. M. Wallace. Eng. pat. 248,864, Dec. 18, 1924. Addition to Eng. pat. 217,468. Complete burning of the calcined ash, issuing from the furnace on a traveling grate as described in the chief patent is assisted by supplying air from above, in addition to that supplied from below.—A. P.-C.

Process of Black Liquor Recovery. A. H. White assignor to J. E. Alexander and E. G. Goodell. U. S. pat. 1,580,269, Apr. 13, 1926. Sulphate black liquor is subjected to destructive distillation, and the residual salts are heated with lime and carbonaceous material to reduce the sodium sulphate present. A temperature is employed (usually about 600° C.) sufficient to effect reduction of the sulphate in the presence of lime, but below the temperature at which calcium carbonate dissociates, and the product is lixiviated to recover caustic soda.—A. P.-C.

Regenerating Process for Sulphate Black Liquor. A. H. White, assignor to J. E. Alexander and E. G. Goodell. U. S. pat. 1,575,473, Mar. 2, 1926. Black liquor from the sulphate process is concentrated and subjected to destructive distillation, the residue is calcined together with calcium carbonate to form a mixture of lime, sodium carbonate and sodium sulphate, and this calcined material is caused to react with carbonaceous material at a temperature of 300 to 900° C. (usually about 600° to 700°) in the absence of air until the sulphate is reduced to sulphide, and is leached to recover the soluble salts.—A. P.-C.

Pulp and Paper Mill Discharge in Relation to the Purity of Streams. V. P. Edwardes. (Paper Mill 49, No. 24, 10, 12, 42, 44 (June 12, 1926); Paper Trade J. 82, No. 24, 43-46 (June 17, 1926). A discussion of the problem facing the American pulp and paper industry due to the pollution of streams by the discharge of mill effluents, more particularly of the legal aspect of the question, of recent action in Wisconsin, and of the necessity of finding some means of disposal which will not cause stream pollution.—A. P.-C.

Straw Board and Straw Paper Waste Water. H. G. Funsett. Paper Ind. 8, 461 (June, 1926); Paper Trade J. 82, No. 24, 46-47 (June 27, 1926). Brief review of progress in the elimination and disposal of straw board mill waste.—A. P.-C.

Beating

Hydrating Cellulose. W. Bacon and I. P. M. Syndicate, Ltd., Eng. pat. 239,304, June 14, 1924. Fibrous cellulose is hydrated by chemical action, neutralized or washed and beaten until the fiber reaches the "gel" or intermediate stage.—A. P.-C.

Beating. R. H. Clapperton and Wm. Henderson. World's Paper Trade Rev. 82, 1380-1386 (April 30, 1926); Paper Trade J. 83, No. 1, 56-57 (July 1, 1926). From a discussion of "wet beating" the authors conclude that the strength of paper made from wet beaten stock is due to fibrillation and is in no way related to its water-retaining properties, the latter being merely a consequence of the greatly increased surface of the fibrillated fibers.—A. P.-C.

Process of Hydration in Paper Making Using Friction. J. A. DeCew. U. S. pat. 1,578,405, Mar. 30, 1926. Cellulosic material is beaten and treated in a jordan engine in water containing dilute caustic alkali in cold solution and is then treated by a sizing process in which the alkalinity is neutralized.—A. P.-C.

Method of Hydrating Cellulose Fibers. J. A. DeCew assignor to Process Engineers, Inc. U. S. pat. 1,580,814, Apr. 13, 1926. Fibers are beaten and treated in a jordan engine in the presence of a soluble alkali until the fibers become pliable from penetration by the alkali, and aluminium sulphate is then used to neutralize the alkali on the surface of the fibers and in the surrounding solution—A. P.-C.

Pulp Testing

Evaluating Pulp. F. D. Libby. Paper Trade J. 82, No. 22, 49 (June 3, 1926). The strength curves obtained with a ball mill and with an experimental beater are similar; but the beating curves develop more slowly and have a lower maximum point than the ball mill curves. The tests have proved of value in mill practice for classifying pulp according to the quality of paper that they yield and for producing more uniform paper.—A. P.-C.

The Freeness of Sulphite Pulp. D. S. Davis. Ind. Eng. Chem. 18, 631-633 (June, 1926). Data and plots are presented intended to enhance the usefulness of the Williams (Schopper-Riegler) freeness tester. A method of duplicating orifice settings is outlined. Curved-line and straight-line plots and an equation are given for the purpose of converting freeness values obtained with an orifice of one size to those obtained with an orifice of a different size. The effect of change of consistency upon freeness is discussed and charts are given for converting freeness values from one consistency to another, the use of charts eliminating a portion of the experimental manipulation. It is pointed out that freeness, as measured by the Williams tester, is not an additive property of the stock and a method is outlined for converting Williams freeness to additive freeness. The type of mathematical treatment employed is equally applicable to orifices of other sizes and to modifications of the procedure to suit individual needs.—A. P.-C.

Miscellaneous

Preliminary Acid Treatment of Wood Before Pulping. L. Bradley and E. P. McKeefe. U. S. pat. 1,581,671, Apr. 20, 1926. Wood is subjected to a preliminary treatment with a hot aqueous acid liquor such as a 1 per cent hydrochloric acid solution, to break down and convert a part of the normally water-insoluble wood constituents into fermentable sugars without cooking the wood or injuring its pulping properties, the sugars are separated, e.g., by counter-current extraction, and the wood is then further treated chemically to produce pulp, e.g., by the action of soda, sulphate or sulphite.—A. P.-C.

Treatment of Chips. G. A. Richter assignor to Brown Co. U. S. pat. 1,557,880, Oct. 20, 1925. Combustion gases which have been partially cooled by admixture of cold gas are used to dry the chips. Some of the gas which has been used for drying is mixed with fresh combustion gases, the proportions of the two being adjusted so as to dry the chips to a predetermined low moisture content.—A. P.-C.

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Stream Pollution Bibliography. Paper Trade J. 82, No. 12, 47-48 (Mar. 25, 1926).—A. P.-C.

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Rubber Rolls for the Paper and Textile Industries. R. Houwink. Zellstoff U. Papier 6, 79-81 (Feb., 1926). Descriptive of the determination of the hardness of rubber rolls by the Pusey and Jones plastometer, the Schopper hardness tester, and the Short durometer. The durometer is recommended.—J.L.P.

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Paper Mill Ventilation. Paper Mill 49, No. 13, 4, 6 (Mar. 27, 1926). Outline of the development of modern ventilation systems for paper machine rooms.—A.P.-C.

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Section of the

COST ASSOCIATION OF THE PAPER INDUSTRY

Affiliated with

THE AMERICAN PAPER AND PULP ASSOCIATION

Conducted by THOS. J. BURKE, C.A., Sec-Treas

Budgets*

By J. Aime Lavallee, Supervisor of Works Accounting, Westinghouse Electric & Mfg. Co., Springfield, Mass.

At the Westinghouse we have three budgets—one on material, one on labor, and one on burden.

The material budget, the simplest of the three, consists of adding a fixed price for every single item of material which is used, and at the same time all our products are budgeted, and we figure the amount of material to go into a product, making a small allowance for defectives. This first section of the budget is drawn by the Purchasing Department as it buys the material and is checked by the Cost man when the material is received and invoiced. The next part of this, quantity control, is tied up with an inventory budget which tells us on the first of the month what material should be bought by the Purchasing Department for delivery in sixty days, what should be scheduled for delivery in the plant in the next thirty days, and how much the Production Department should have in the plant for use in the current month.

Now each section of these three budgets we could discuss for hours. They are all very much detailed in that we have thousands and thousands of products in production at all times.

Time Study in Decimal Hours

On the labor budget, we budget all operations by time study in decimal hours. We divide the hours into hundredths for facility, and that permits us—while we do have a standard arrangement with employees that once a task is set it will not be changed—to hire employees at a lower hourly rate. One employee may have as many as ten or fifteen different single jobs in a day, and the total earnings of the day may be ten or fifteen or twenty hours. If a man makes twenty hours or forty cents, it is practically the equivalent of sixty cents an hour. Whereas, if a man makes only nine hours, we hire the man perhaps at a lower rate per hour. We have a chance to correct any error we may make in studying our job or operation, before any of it goes into production.

The same allowance is used in all our standard costs and the variations between standard cost and actual cost are cleared off weekly to a profit and loss account. This variation, by the way, has been rather small in the last few years. I don't believe it has averaged more than two per cent, taking the high and low—the average would be much less.

Now in the burden, we do get into a complicated problem. If we had one item for months and years there would be no difficulty. But the difficulty is that the loads will vary from month to month, and the class of product will vary from month to month, and it is next to impossible to establish what should be put in to our factory expense account each month. After years of study we have developed a plan which consists of basing as many of our expense accounts on the productive labor as possible. For instance, take the foreman. We first made a long study and determined that on productive labor of so many thousands of dollars we would have to have one foreman. If we doubled the amount we would perhaps have to add another foreman. But in the meantime, between these two points there was no way to overcome this gap. In one case the company would be making money over the budget, and just as we turned over that point, we would lose. In the meantime, over the entire plant we have developed an allowance of expense for each account. I have a sample made for each one of them.

Divided Into Large Numbers of Accounts

As you will note by the sheets, the factory expense accounts are divided into a large number of accounts, and we have made a very earnest effort to hold one person responsible for each one of these accounts. We even carry it so far as to refuse a rerate to a man who does not meet his budget, or any of the men working for him. So there is a great incentive in the budget for people to live within the allotted expense.

Take account twelve or thirteen. You will find that a certain allowance has been made against which is posted the actual expense. If you will revert to the first sheet on which there is a curve plotted you will see on the bottom of the sheet a column of productive labor figures; and on the curve sheet it is there as a curve showing that for each $100 of productive labor there is a certain point where the curve will meet with a percentage figure. For instance, on the weekly productive labor of $4,000.00, we find the curve meeting at a point of 13 per cent. Now that means that on a payroll of $4,000.00 for productive labor, the foreman is allowed 13 per cent of $4,000.00, or $520.00, as his budget expense for that particular week. If during the current week or the week afterwards his productive labor increases, say goes up to $6,000.00, he will be allowed 9¼ per cent of $6,000.00, or $585.00, which will give him quite a little more in dollars but *not* 50 per cent more of what the allowance had been before.

Now before this curve was finally determined we went back about three years and took all the actual costs of operating this particular department under varying conditions. We presented them to the foreman, drew up a tentative curve on the sheet for his study, and then on the foreman we used this argument: That if he had been able to operate a certain amount of productive labor at a certain expense, for a certain period, in the past under certain conditions, he certainly ought to do better in the future; so that in most cases these curves have been set two or three points lower than what past experience had shown the cost to have been.

Now all accounts cannot be set, using as a basis productive

*Delivered at Convention of the Cost Association of the Paper Industry, at Holyoke, Mass., Sept. 23, 1926.

WEEKLY EXPENSE STATEMENT

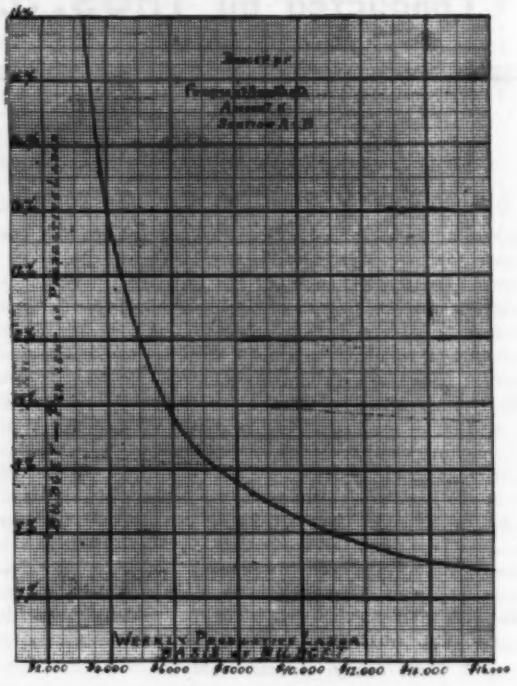
Date, November 24, 1925. Section A & B

A/C No.	Description	Allowance Current Week	Actual Expenses Current Week	Allowance Current Month	Actual Expenses Current Month	Accumulated Allowance	Accumulated Expenses
11	General Factory Supervision						
12	Supts. & General Foremen	80	80	320	320	681	681
13	Foremen & Assists.	948	809	3,855	3,708	8,477	8,375
14	Rate Setters	166	170	664	679	1,494	1,528
15	Inspectors	1,110	1,169	4,794	5,057	10,580	10,844
151	Inspectors—Incoming Material	56	26	224	157	504	429
152	Inspectors—Tools	50	50	148	148	379	379
17	General Supervisory Staff	53	50	212	200	477	478
19	Production Clerks	685	677	2,915	3,038	6,338	6,460
20	Cost Accounting Clerks	259	244	1,092	1,002	2,408	2,367
21	Payroll and Time Clerks	247	214	1,009	863	2,252	1,903
24	Elevator Operators	43	36	172	153	387	366
25	Oilers, Cleaners & Porters	246	190	838	861	1,796	1,961
26	Material Handling	237	310	996	1,377	2,216	3,011
29	Miscellaneous Wages	210	207	931	935	2,216	2,137
291	Taking Inventory	...	57	...	154	...	239
32	Fuel, Water & Refrigeration	...	...	...	...	...	...
34	Stationery and Office Supplies	74	150	321	611	709	984
35	Misc. Shop Supplies	77	187	290	641	594	1,460
45	Def. Work—Shop Repairs	440	488	1,895	2,193	3,956	4,771
451	Def. Work—Scrap Tags	440	255	1,897	1,391	3,955	3,702
46	Defective Purchased Material	...	...	1	1	73	73
47	Other Losses—Errors	...	8	...	57	...	72
49	Stores—Purchased Parts	58	71	238	404	534	1,292
491	Stores—Work in Prog.	240	280	1,021	1,195	2,262	2,671
492	Stores—Assignment Division	...	...	...	...	...	26
493	Receiving Department	...	...	...	...	...	...
494	Material Disposition	...	...	...	...	...	...
50	Shipping and Traffic Departments	248	129	610	549	1,586	1,602
51	Engineering—Shop Portion	410	410	1,640	1,640	3,280	3,280
52	Power—Purchased and Generated	500	500	2,000	2,000	4,000	4,000
54	Police Department	...	...	...	...	...	...
55	Maintenance of Railway	...	...	...	...	...	21
56	Purchasing Department	...	...	...	...	...	...
60	Other Misc. Service	...	...	2	1	18	15
62	Rearrangement of Equipment	40	23	160	134	360	677
63	Welfare, Inc., Vac. of Hrly. Emp.	...	...	...	...	...	40
64	Accident Compensation	...	...	...	...	...	...
66	Instructors & Learners	70	151	280	436	630	992
67	Unapp. Prod. L. & Mtl.	1,077	1,361	4,485	5,205	9,473	10,556
68	Unassigned Freight and Express	...	3	...	3	...	5
69	Other Misc. Fac. Expenses	28	32	116	182	259	336
71	Fire Ins. & Taxes	...	...	...	...	...	...
73	Bldg. Dept. & Rental	116	116	464	464	924	924
74	Dept. of Mchy. & Tools	508	508	2,032	2,032	4,062	4,062
76	Fac. Bldgs. & Structures	35	35	95	95	182	182
87	Mach. Tools—Repairs	254	345	1,113	1,438	2,437	2,923
90	Hand Tools & Mech. Equipment	306	145	1,342	752	2,959	2,379
92	Machining Tools—Repairs	734	619	3,218	3,448	7,544	7,584
93	Handl. & Test. Equip.	122	182	537	418	929	749
96	Furniture & Fixtures	17	2	71	117	154	276
	Proportion of Gen. Exp.	3,466	3,466	14,767	14,767	32,229	32,229
	Total Fact. Expenses	13,644	13,755	56,765	58,829	123,314	129,053
	Productive Labor	12,227	12,227	53,641	53,641	117,911	117,911
	Authorized Overhead %	...	...	...	...	...	...
	Actual Overhead %	111.6	112.5	105.8	109.7	104.6	109.4
	Estimated Labor Cost Variances %	...	...	...	...	...	...
	Actual Labor Cost Variances %	...	...	...	...	...	...

labor, for instance, our shipping department could not follow a curve of productive labor, because their expenses are based on the tonnage handled. So, in place of putting at the bottom of the curve productive labor for the shipping account, we put tonnage. For every ton shipped, we allow a certain amount of money. Our purchasing department is run on the same basis. For each order placed, the purchasing agent is allowed a certain amount of money, but *always on a curve.* He is allowed a higher percentage for a lower number of orders placed; because we recognize that basically we have to keep a certain organization which will be a fixed charge, and above that the expense will be allowed to rise with the increase in orders placed, or number of tons shipped, or number of people working in a room.

The Foreman's Position

Now as to the foreman's reaction to this. For the first year, it was pretty hard for him to realize that, whereas he had been allowed in the past to run pretty much as he wanted to, he had to follow a certain set figure. However, we proved to him that what he had done in the past was not altogether what should have been done. You perhaps have experienced the same thing. When you are taking on people and increasing production, if you make a curve you will find that the productive curve will go straight



BUDGET OF FOREMEN ASSISTANTS

up, get to a peak and then come down. If you plot on the same scale the actual expense of the department, you will find that the expense curve will drag low after the productive labor curve has gone up, and then go up, and stay up a long time *after the productive labor curve has gone away down.* There is always a tendency not to let a man go. If you have an assistant you hate like the dickens to let him go, because he has done a lot of good work for you. You hesitate a long time before you let him go. And this budget has corrected that very fault for the foreman. As the productive labor dropped it showed how much he would have to cut his expense.

The first year of the budget was not successful because, while we said that a man had to spend so much, he kept on spending as much as he did before. So one day our manager got into his head that the idea was not to give a man an increase in pay until he met his budget. And that corrected the situation. Everybody met his budget and we are today having difficulty only with machines or keeping up tools—where accidents occur, and machines break and tools bust up. In the meantime, however, over a period of months the machine account will parallel where it should be.

Now in making studies with such a curve you will run into very peculiar conditions. We found that as you increase your productive labor, and start to hire help, you are bound to hire

help that you won't always need, and when you drop at the other end of the line, in the feeder department, you will be retaining a lot of your assembly people long after the feeder departments have gone home. So it is necessary to segregate your plant into as many departments as is necessary. In our case we have thirteen. We are planning to have some more, because we find within departments conditions are very different.

It is very important that such a budget be put out as early as possible after the expenditure. The best we have been able to do with consistency is Thursday of the following week. This budget will come out today for last week. Occasionally we get it by Tuesday or Wednesday, but to always do that, would be very costly.

Cost of Operation

Now the cost of operating the budget at the present time for our plant, now of four thousand or forty-five hundred, consists of three girls. There was a lot of expense involved in studying these curves. It took two years. But after the curves were once set we turned it over to three comptometer operators and they figure it out every week. The first thing they get is productive labor. They get it on Monday noon, and immediately they start to write the first column, which is the budget allowance for each of the accounts and each of the sections. By Tuesday they start to get in the reports from the departments as to what the actual expenditures have been, and as fast as they come in they fill in the spaces where they belong. As soon as the last figure is in, they run down with the comptometer to get the totals.

On this particular budget we figure we have saved about twenty per cent in our entire factory expense over and above what it had been before.

Another Factor of Great Importance

There is another factor which is of the greatest importance, in that we are constantly buying new equipment to reduce our direct labor. If, for instance, we have a task of one hour to wind a certain armature, we will say, and we discover a method of winding it in half an hour, even though it may cost us thousands of dollars we will do it. By reducing the productive labor on these accounts we automatically reduce the budget allowance for that particular department, and I believe the theory is sound, in that your productive labor basis is again turned into a certain number of people that you have to supervise. And if you have such a curve based on productive labor you automatically reduce the labor of every department and bring down the expense at the same time. We have found it to work with the exception of the investment account, where, as we apparently decrease our direct cost we increase our investments.

We have tried hard to put down *all* our productive labor because that is the only factor that is apparently being reduced. On the tonnage shipped, even though we make a product for only one-third the cost, it will weigh about as much, and we are allowing our shipping department as much after the cost deduction as before, even though the expense has come down. There should be some improvement in the shipping department. We are following the same practice there with our budget as we did with our direct labor. We guarantee not to change the curve when it is set except when abnormal conditions arise, such as movement of the department, or change of department, or division of a department or such major moves.

This plan as far as I know has not been installed in any of the other Westinghouse plants. However, they have sent representatives down and I would not be surprised to see it accepted as standard before very long. We are now operating about twenty per cent lower than in the past, a condition which does not obtain in the other plants where they have not budgets, and this can be extended a whole lot.

How the Figure Is Arrived At

I might mention one account in detail, to show how the figure is arrived at. Take, for instance, account number thirteen over the past several years. The curve of productive labor will rise much more rapidly than the expense, and likewise will drop much faster than the other one. So that in this particular point we found that this expense curve should drop more rapidly. The foreman found all sorts of excuses for not letting the help go. In the first place, they said getting new help on the payroll is expensive. They have to be trained and we are always looking ahead. Now it is unfortunate, that so far, we have not been able to develop any forecasting, to any extent, as to what our sales will be three months from now. The foreman took the attitude, that it was cheaper for the company to take a chance, that in two or three months the orders would come in to permit of using the help already trained, rather than perhaps having to train new ones. It was a hard attitude to change. To offset the condition we made them put on more people at the start, so that the allowance would be large at the start, and they could afford to keep more people, hire people quicker, and actually follow more closely the productive curve.

Now we find, that at the start many foremen will not hire help at the expense of a total cost. They will try to carry too big a load, usually resulting in high "defective" expenses and all sorts of other expense that should never exist if we had the proper supervision. The foremen took the stand that nobody in the accounting department knew anywhere near as much about their departments as they did, and to some extent they were right. We took the foremen to task to explain to us in great detail, after giving them all the actual figures that they had seen before, why their expense should be so, and after a long analysis of it they admitted, or most of them did, that all the money had actually been wasted, that the help could actually have gone much sooner.

Very few accounts that I know of have had to go to the management for final settlement. They have been agreed upon by the foremen, and the foremen have signed for all these before they became effective.

Now if anyone has in mind a special account that he would like to ask questions on, I think we might get to some of these quicker.

Discussion

PRESIDENT SCOTT: Do I understand you to say that the purchasing department's budget is set up on the basis of number of orders placed, or tonnage?

MR. LAVALLEE: The purchasing department's budget is set up on the number of orders placed. If the purchasing department is placing 1000 orders in one month we may allow four dollars per order. If they are placing 500, we may allow perhaps two and a half times as much, because there are certain fixed expenses to be absorbed.

MR. SCOTT: It doesn't matter as to the size of an order?

MR. LAVALLEE: Some orders may take a lot more time than others, but the clerical work is where the biggest cost comes in.

We found a condition last month. We found five orders placed for the same material, and in this condition we found that not only had they placed five orders, small orders, but we paid almost double what we should have for the material. There were five orders that we did get from the United States Government, special stuff, transmittal work, and under our system buying the material for those special orders in that way couldn't be avoided. An order would come in, we would give it to a clerk and he would buy all the material for that particular order. And it did happen that we got five orders for that special spring silver wire. But that is very unusual.

MEMBER: If you are able to budget your purchasing department relative to the material accounts, why are you not able to forecast for your factory?

MR. LAVALLEE: The Purchasing Department is the first step and will be the first one to feel the effect of new business coming in. On budgeting productive labor, we have a special budget for the productive labor based on the orders entered, but although we get a copy of the sales orders, before it goes to the depart-

ment, it is pretty difficult to establish how many people we will have to have special departments. Sometimes orders come in for delivery a year ahead. At the same time, we may have an order for delivery in thirty days. And we get such a mass of figures it is difficult to control.

MEMBER: Do you expect to forecast your sales?

MR. LAVALLEE: We do use a lot of services outside, and plot our curves against them. We had a budget up this morning for spending a lot of money, that was started six months ago. At that time the estimated requirements were fifteen thousand a month, and now they are asking us to refigure on the basis of five thousand a month, because the curve of Babson shows a downward tendency.

MR. SCOTT: Do you think that condition is peculiar to your industry or could it be applied to paper?

MR. LAVALLEE: I imagine the same thing would apply. It has been almost impossible to forecast what requirements will be. In our industry we cannot even explain why we have had so much business in the last three or four years, except from radio. We don't know where all the motors are being used. We are making a whale of a lot of them.

MEMBER: Does each department keep a record of their own expenses?

MR. LAVALLEE: Our accounting department is divided into thirteen cost sections. Each section consists of a cost clerk, a payroll clerk, and a time clerk. They have their office in the section where the work is done and they keep their actual costs. The office does the budgeting.

MR. SCOTT: This applies to your East Springfield plant alone—thirteen sections, with four thousand employees?

MR. LAVALLEE: Yes.

MR. SCOTT: How many in your cost accounting department?

MR. LAVALLEE: About one hundred people all told.

MEMBER: Some of these people here are interested in radio, and you ought to tell them how generous your company is on small orders.

MR. LAVALLEE: Small orders are expensive and are a loss. In the first place we keep standard costs and when you get a small order on standard costs it means a big excess cost for the particular foreman having to produce that small order. And he has to absorb that; and we of course on our side argue that it is only a small item of the total. He always brings up the fact, the foreman, that in this particular month he has had to handle five or six hundred small orders, and has had to absorb the expense. It seems that when business is going on the down grade that people are buying in smaller quantities, and it causes the expense to be higher in each department.

MEMBER: How do you pin down the excessive cost to the particular foreman?

MR. LAVALLE: We divide our excess report into five classes. One item of it is the employment of people at a higher rate than is called for by the standard. The third is people not being capable of meeting the standard set. The fourth is due to breakdown. The foreman may have high excess cost one day due to the fact that he has had to produce on a certain machine a piece of work scheduled to go on another machine, a master operating machine. And the fifth is miscellaneous conditions which are not classified. That excess is figured in each department, and every morning the cards of the day before are returned to him, the actual time card with the excess figured on each time card, so that he can definitely state where the excess comes from. Last week one foreman discharged five employees who had consistently caused him to have high excess, due to failure to meet the task. They couldn't handle the particular class of work and meet the standard cost. They were not fired but were transferred to another department.

MEMBER: You have predetermined standards to compare your excess figures with?

MR. LAVALLEE: We have what we call a base cost for each product, and in order to estimate to the sales department our actual cost as nearly as possible we prorate over the base cost our excess cost. So that for that particular account, the profit and loss account is liable to become so big at times that we wouldn't dare call it an item of our commercial or administrative expense. We prorate that over the base cost.

MEMBER: With the collection of expenses on a weekly basis, if you find that you do not have invoices on items, do they go into the next week?

MR. LAVALLEE: That will happen. We don't have many of them. When we have not received the invoice on any item we estimate it on our standard cost.

MEMBER: You do not have trouble collecting expenses for any particular item?

MR. LAVALLEE: No. It is automatic.

MEMBER: Can you estimate your last week's expenses this week, for instance?

MR. LAVALLEE: Yes. And every morning at nine o'clock the payroll of the department is done. Sometimes before the girls go home they have the payroll done for that particular day, and the excess figures. You see you have the time clerk sitting here, and the payroll clerk sitting next to her, and the cost man, and they just run the cards right along. And then the cards are available for the foreman to study. The same thing is done with our material cards.

MEMBER: What does number 67 on your sheet mean—unapplied productive labor?

MR. LAVALLEE: We do have quite a few items that it is impossible to budget. For instance, the polishing of a motor before shipping. It may take a minute or fifteen minutes. It is impossible to establish any kind of a standard on it. Up to recently we had in our 67 account all our plating cost, the plating of material. We recently devised a means of putting that into standard cost, and our plating is now on standard cost.

MEMBER: Do you apply any overhead on the basis of your productive labor? You speak of these unapplied. How do you get them into into your costs?

MR. LAVALLEE: Through the total of departmental overhead. That is revised every six months or a year.

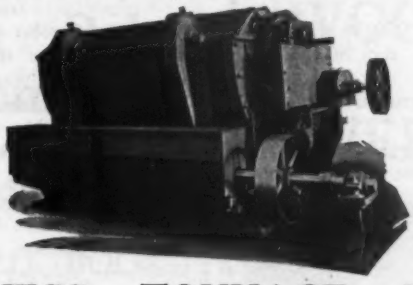
MEMBER: How do you apportion your general factory overhead to the different departments?

MR. LAVALLEE: Mostly on productive labor. The actual application of cost on productive labor. Take account seventy-three, for instance—depreciation of building. That is on floor space. Take the distribution of the light bill. Our power consumption is based on the horsepower equipment in the department by the number of people in the department.

MEMBER: Do you take into consideration the local factor of the motor running in the department?

MR. LAVALLEE: We assume if you have a certain number of people that 80% of the motors are running. And if you have half that number, there will be 40% of the motors running.

I might say this is taking the thing about half way. It might be interesting to know how we arrive at our factory cost. We take the selling price given to us by the sales department, which is nothing but the competitors' price, the best price we can get in the market. We deduct from it our administrative and selling expenses, and that is our factory cost. That is our budget and we have to make a product for that price and show our profit in it. I have one on my desk now where, in order to make and sell this particular product, we have to take twenty-five per cent off the present cost in order to go in the market at all. We take the foreman, cost men, time study men, and in the first place we may have to send out and get a competitor's sample, or competitors' samples. We may have to get them in the open market. We will take the sample up and find out why ours is costing more than theirs, and after we find out what they are doing, we will try and make one cheaper than what they have got. We will have the engineer sit with us, and line up all the parts of their motor and then ours, and before we get through very likely we will have a



CLEANLINESS TONNAGE ECONOMY

The Moore & White Rotary Screen is noted for producing clean paper, its capacity, and the economical manner in which it operates.

Send for complete information and Catalog

Read what one of our satisfied users says:

Gentlemen:

We have now had your Screen in operation for about two months, and our opinion of this screen is such that we are contemplating further installation. Please make us a proposition on four more.

Yours truly,
Name of Mill on Request

The Moore & White Co.

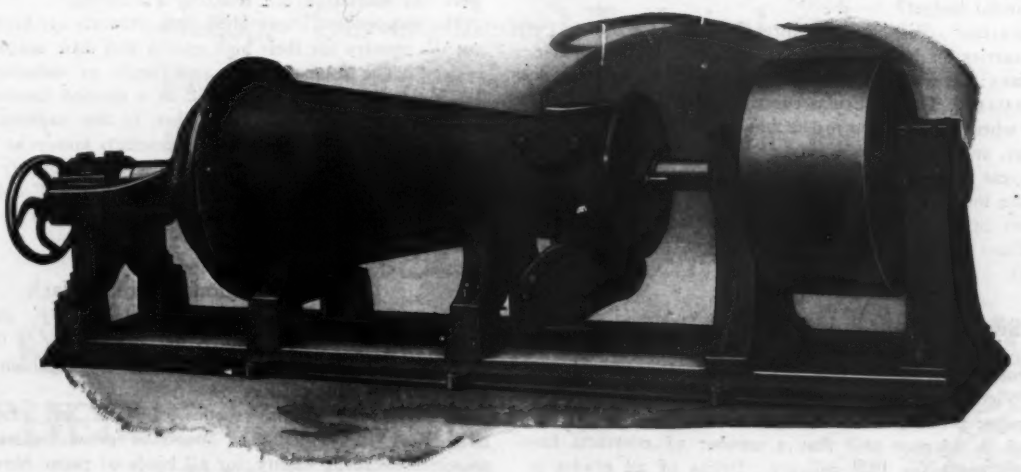
Est. 1885

No. Phila. Station, P. R. R. **Phila., Pa. U. S. A.**

THE SMITH & WINCHESTER MFG. CO.

SOUTH WINDHAM, CONN.

PAPER MILL MACHINERY **MACHINE BUILDERS** **PAPER BAG MACHINERY**



NO. 60 JORDAN ENGINE

motor that will be just as good or better at less cost than they can make it for.

In one particular case we spent nearly, $200,000.00 to reduce the cost of a certain motor by $4.00 per unit. But, of course now we are selling them in large quantities.

MEMBER: How do you absorb that particular expense—that $200,000.00?

MR. LAVALLEE: That development was spread over two years, $100,000.00 a year, and was written off in the cost of the motor, so much per motor.

MEMBER: You absorbed it in the article itself, then you must have budgeted or estimated your sales. How did you do that?

MR. LAVALLEE: We got the sales department to tell us that at this particular cost they could sell so many thousand motors, and if they don't sell all those motors it will be written off in the profit and loss account. It is quite an elaborate set-up to get money to spend on this cost reduction. It has to be approved by a lot of the officers of the company. You might say it is unlimited. If we had an unlimited supply of cash it would be fine.

MEMBER: You mentioned a proposition put up to your factory relative to getting out a particular article at such a reduced cost that it seemed almost impossible. Do you mind relating that experience?

MR. LAVALLEE: In the case of a particular motor our cost was running from $14.00 to $16.00. We are making that identical motor to-day for $6.00. It was all done by buying the very best machines we could get and eliminating all inactive material. I mean by that, in the first place in making a motor you have to have a certain amount of iron and copper wire. It would not be a motor otherwise, and that is balanced with a certain amount of horsepower or force that comes out of the motor. Everything else except that which is actually required to make an electric motor out of it we call "excess material." But we have to have some one thing to support the armature, but we don't allow for it and call it "excess material." So we are taking in a phase where our cost man has to be some sort of an engineer and mechanic besides being a cost clerk. In fact, we have found it valuable to take a mechanic or engineer and make him a cost man and teach him the clerical end of it inside of a year, under our system. Whereas, it would take five or ten years to teach a man out of college, who only knows the clerical end of it, all about the machines in a factory.

MR. BURKE: Did you say that the budget worked out within two per cent?

MR. LAVALLEE: That is on the direct cost budget.

MR. BURKE: This is a cost budget you are talking about, and not a financial budget?

MR. LAVALLEE: We have the three items in the budget, and the labor carries the budget within two per cent over and under.

MR. BURKE: It took you two years to work it up?

MR. LAVALLEE: This particular curve I started to work on three years ago when I was in the production department, I gave it five hours a day, and it has been a year since it has been in operation. The first year it was not very successful, because we couldn't get the foremen interested in holding down to the allowance.

PRESIDENT SCOTT: I am sure we are indebted to Mr. Lavallee for his clear explanation. Personally I got a lot out of it. (Applause).

Swedish Pulp Sold For 1928 Delivery

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., October 12, 1926.—It is reported, says American Vice Consul Jones that by far the largest part of the pulp and paper production of Sweden for 1927 has already been disposed of in advance and that a number of contracts have already been made for 1928 delivery. Prices of all grades remain firm. No ill effect has been noted as a result of the increased British duties on paper and it appears that the Swedish exporters have already adapted themselves to this new condition.

New Officers of Messinger Paper Company

[FROM OUR REGULAR CORRESPONDENT]

CHICAGO, October 4, 1926.—The Messinger Paper Comapny, 732 West Van Buren street, has sent out an attractive folder announcing H. A. Washburn and associates have succeeded to the business of the company. The officers of the new organization are H. A. Washburn, president and treasurer; F. W. Smalley, vice-president; J. H. Maney, vice-president; E. V. Zahringer, secretary; Frank R. Mason, manager of office and credits.

The sales division includes Vernon E. Bloodgood, Chester Boothroyd, John P. Doherty, Edward R. Gielow, Henry A. Goff, James W. Johnson, John E. Loughrin, Frank T. Lynch, Edward M. Murray, Edward A. Rich, Joseph W. Rick, Harry M. Royale, Harry G. Weimer.

The company carries the following lines:

Albermarle Paper Manufacturing Company's Blotting Papers.

Beveridge Paper Company's Bristols, Blanks and Specialties.

L. L. Brown Paper Company's Ledger and Bond Paper.

Champion Coated Paper Company's Plain and Coated Book Paper, Coated Blanks.

Chemical Paper Manufacturing Company's Ledgers, Index Bristols, Covers and Thin Papers.

Crocker-McElwain Company's Ledgers, Bonds, Index Bristols and Weddings.

Hoskins-Morainville Paper Company's Kraft and Specialties.

Esleeck Mfg. Company's Thin Papers.

Rex Paper Company's Dull Coated Offset.

B. D. Rising Paper Company's Ledgers, Bonds and Index Bristols.

Waterfalls Paper Mills' Bond, Ledgers and Book Paper, Weddings and Offset.

Independent Mills Move to Plattsburg

The steady growth of the Independent Paper Mills, Inc., of Brooklyn, New York, patentees and manufacturers of HY-G Napkins and HY-G Towels, generally known throughout the country, has necessitated the adoption of a policy of expansion. In accordance with this policy, the company has already moved its plant and executive offices to Plattsburgh, N. Y., having contracted with the Saranac Pulp and Paper Company of that city for a part of the production of its Yankee machine.

The general working conditions in Plattsburg together with the fact that the Independent Paper Mills, Inc., have found the Saranac Pulp and Paper Company's M. G. bleached sulphite tissue most superior in maintaining the high standard of its products, were the incentives for selecting Plattsburg.

The Independent Paper Mills, Inc., products are known throughout the country for their high quality and their uniqtie dispensing system. The company will soon begin to manufacture HL-G Toilet Paper which it claims will be a decided improvement over anything that is now on the market, so that napkins, towels and toilet paper will be the company's products known as "HY-G."

The company's sales offices will remain temporarily at its present address at 39th street and Second avenue, Brooklyn, N. Y., until about November when its new sales offices in New York City will be ready for occupancy.

A New National Direct Black

Under the name National Erie Black RFP, the National Aniline and Chemical Company, Inc., is bringing to the attention of paper makers a new direct black as a companion product to National Erie Black BFP.

For producing reddish shades of black and gray, National Erie Black RFP should be found of great importance, as it possesses excellent affinity for all kinds of paper fibres and represents very good money value. Product samples with full technical information may be obtained from any of the National branch offices.

West Virginia Pulp and Paper Company

Manufacturers of

SUPERCALENDERED
and
MACHINE FINISHED BOOK
and LITHOGRAPHIC
PAPERS

Offset, Envelope, Bond, Writing, Cover and Music Paper, High Grade Coated Book, Index Bristol, Post Card, Kraft and Label Papers

also

Bleached Spruce Sulphite and Soda, Kraft Pulp

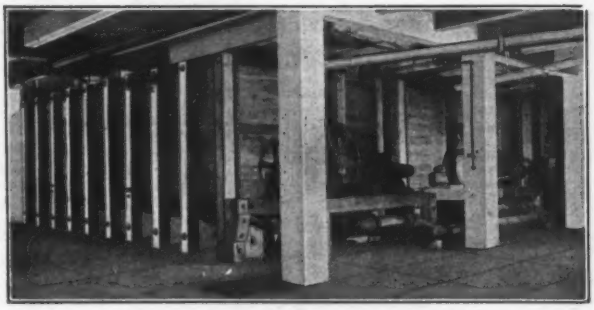
200 Fifth Avenue, New York — 732 Sherman Street, Chicago

503 Market St., San Francisco, Cal.

122 East 7th St., Los Angeles, Cal.

Sixth and Chestnut Sts., Philadelphia, Pa.

WOODEN TANKS
for
EVERY PURPOSE



Stuff Chests—Frank Smith Paper Co.
Middletown, Ohio*

Stuff Chests, like those illustrated above, cylindrical chests, beater tubs, acid blow cases, alum tanks, etc., are a specialty with us. Let our engineers assist you in determining the type of construction and material best suited for your requirements. Our catalog containing a treatise on "The Effect of Chemical Solutions on Different Tank Woods" is yours for the asking.

The Hauser-Stander Tank Co.
Cincinnati, Ohio

EMPIRE QUALITY ROSIN SIZE

The Economies derived from the use of our Emulsifying System are well worth your consideration. Our experienced **Technical and Practical Service Staff** is ready to demonstrate this without obligation to you. Why not ask us now?

A Perfect Product of Practical Experience

EMPIRE SIZE & CHEMICAL CORP.
ALBANY, N. Y.

Imports of Paper and Paper Stock

NEW YORK, BOSTON, PHILADELPHIA AND OTHER PORTS

NEW YORK IMPORTS

WEEK ENDING OCTOBER 16, 1926

SUMMARY

Cigarette paper .....299 cs.
Wall paper .....25 bls., 3 cs.
Paper hangings .....41 bls., 25 cs.
Paint paper .....5 cs.
News print .....752 rolls
Printing paper .....32 rolls, 27 cs.
Wrapping paper .....20 bls.
Packing paper .....5 cs.
Filter paper .....212 bls., 2 cs.
Parchment paper .....7 cs.
Writing paper .....1 cs.
Letter paper .....1 cs.
Tissue paper .....70 cs.
Colored paper .....2 cs.
Stencil paper .....28 cs.
Pergamyn paper .....38 cs.
Decalcomania paper .....51 cs.
Surface coated paper .....336 cs.
Baryta coated paper .....50 cs.
Straw board .....1461 rolls
Miscellaneous paper .....58 bls., 98 cs.

CIGARETTE PAPER

Standard Products Corp., Pipestone County, Havre, 80 cs.
R. J. Reynolds Tobacco Co., Pipestone County, Havre, 100 cs.
The Surbrug Co., Suffren, Havre, 18 cs.
Standard Products Corp., Suffren, Havre, 101 cs.

WALL PAPER

F. J. Emmerich, Baltic, Liverpool, 1 ble.
A. C. Dodman, Jr., Inc., Homeric, Southampton, 24 bls.
Hudson Freight Forwarding Co., Mauretania, Southampton, 3 cs.

PAPER HANGINGS

W. H. S. Lloyd & Co., Caronia, Liverpool, 10 bls., 3 cs.
A. C. Dodman, Jr., Inc., Baltic, Liverpool, 26 bls.
Whiting & Patterson Co., Minnekahda, London, 14 cs.
Whiting & Patterson Co., Homeric, Southampton, 4 cs.
Whiting & Patterson Co., Mauretania, Southampton, 3 cs.
G. J. Hunken, Westphalia, Hamburg, 5 bls., 1 cs.

PAINT PAPER

Tice & Lynch, Suffren, Havre, 2 cs.
F. J. Emmerich, Suffren, Havre, 1 cs.
C. Grimmer & Co., Suffren, Havre, 1 cs.
W. H. S. Lloyd & Co., Suffren, Havre, 1 cs.

NEWS PRINT

Parsons & Whittemore, Inc., Korsholm, Kotka, 752 rolls.

PRINTING PAPER

Perkins, Goodwin & Co., Rotterdam, Rotterdam, 32 rolls.
E. Dietzgen & Co., Rotterdam, Rotterdam, 11 cs.
Japan Paper Co., Rotterdam, Rotterdam, 2 cs.
Martin & Bechtold, Pres. Harding, Bremen, 14 cs.

WRAPPING PAPER

Birn & Wachenheim, Westphalia, Hamburg, 20 bls.

PACKING PAPER

C. Steiner, Belgenland, Antwerp, 5 cs.

FILTER PAPER

H. Reeve Angel & Co., Inc., Homeric, Southampton, 43 bls., 2 cs.
J. Manheimer, Homeric, Southampton, 169 bls.

PARCHMENT PAPER

Globe Shipping Co., Rotterdam, Rotterdam, 7 cs.

WRITING PAPER

W. J. Byrnes, Pipestone County, Havre, 1 cs.

LETTER PAPER

American Express Co., Westphalia, Hamburg, 1 cs.

TISSUE PAPER

Meadows, Wye & Co., Baltic, Liverpool, 3 cs.
F. C. Strype, Baltic, Liverpool, 1 cs.
Japan Paper Co., American Shipper, London, 1 cs.
Old Master Pulp & Paper Co., Westphalia, Hamburg, 65 cs.

COLORED PAPER

H. D. Catty & Co., Belgenland, Antwerp, 2 cs.

STENCIL PAPER

Arlac Dry Stencil Co., Westphalia, Hamburg, 28 cs.

PERGAMYN PAPER

F. C. Strype, Westphalia, Hamburg, 38 cs.

DECALCOMANIA PAPER

B. F. Drakenfeld & Co., Baltic, Liverpool, 21 cs.
C. W. Sellers, Pres. Harding, Bremen, 8 cs.
L. A. Consmiller, Pres. Harding, Bremen, 22 cs.

SURFACE COATED PAPER

P. C. Zuhlke, Belgenland, Antwerp, 56 cs.
P. Puttman, Belgenland, Antwerp, 192 cs.
Gevaert Co. of America, Belgenland, Antwerp, 68 cs.
L. de Jonge & Co., Westphalia, Hamburg, 20 cs.

BARYTA COATED PAPER

Globe Shipping Co., Pres. Harding, Bremen, 50 cs.

STRAW BOARD

Haas Bros., Rotterdam, Rotterdam, 242 rolls.
A. Vuyk, Rotterdam, Rotterdam, 1219 rolls.

MISCELLANEOUS PAPER

S. Gilbert, Rotterdam, Rotterdam, 9 cs.
A. S. Salmon Co., Suffren, Havre, 4 cs.
Favor, Ruhl & Co., Suffren, Havre, 9 cs.
G. W. Sheldon & Co., Suffren, Havre, 11 cs.
The Reiser Co., Havre Maru, Kobe, 9 cs.
Whitfield Paper Works, Havre Maru, Kobe, 32 cs.
Herman Paper Co., Westphalia, Hamburg, 12 cs.
Perry, Ryer & Co., Transylvania, Glasgow, 58 bls.
Japan Paper Co., France, Havre, 7 cs.
Favor, Ruhl & Co., Homeric, Southampton, 5 cs.

RAGS, BAGGING, ETC.

W. Steck & Co., Rotterdam, Rotterdam, 30 bls. rags.
Chase National Bank, Chelma, Marseilles, 72 bls. rags.
V. Galaup, Pipestone County, Havre, 658 b's. rags.
Bulkley, Dunton & Co., Pipestone County, Havre, 129 bls. rags.
E. J. Keller Co., Inc., Pipestone County, Havre, 96 bls. rags.
2nd National Bank, Pipestone County, Havre, 614 bls. rags.
T. D. Downing & Co., Pipestone County, Havre, 53 bls. rags.
State Bank, Pipestone County, Havre, 288 bls. rags.
L. H. Abenheimer, Pipestone County, Havre, 283 bls. rags.
Atlas Waste Manfg. Co., Pipestone County, Havre 168 bls. rags.
D. M. Hicks, Inc., Pipestone County, Havre, 102 bls. rags.
A. H. Searle, London Mariner, London, 173 bls. rags.
B. D. Kaplan, Caronia, Liverpool, 15 bls. rags.
D. M. Hicks, Inc., Havre Maru, Kobe, 70 bls. rags.
Phila. Girard National Bank, Havre Maru, Kobe, 135 bls. rags.
I. Cohen Son, Inc., Baltic, Liverpool, 21 bls. rags.
R. D. Kaplan, Baltic, Liverpool, 5 bls. rags.
Central National Bank, Baltic, Liverpool, 38 bls. rags.
V. Galaup, Baltic, Liverpool, 11 bls. rags.
Cohen & Josephy, Baltic, Liverpool, 38 bls. rags.
A. C. Fetterolf, Baltic, Liverpool, 113 bls. rags.
Chase National Bank, Carnia, Oran, 454 bls. rags.
National City Bank, Carnia, Messina, 136 bls. rags.
E. J. Keller Co., Inc., Belgenland, Antwerp, 61 bls. flax waste.
Brown Bros. & Co., Minnekahda, London, 50 b's. rags.
I. Abela & Co., Alberta, Trieste, 27 bls. rags.
H. G. Lichtenstein, Alberta, Trieste, 184 bls. rags.
Anglo Paper Mills, Westphalia, Hamburg, 40 bls. rags.
W. Steck & Co., Westphalia, Hamburg, 45 bls. jute waste.
G. M. Graves Co., Transylvania, Glasgow, 70 bls. bagging.
E. Butterworth & Co., Inc., Incemore, Belfast, 57 bls. rags.
F. B. Vandegrift & Co., Istria, Genoa, 30 bls. bagging.
S. Birkenstein & Sons, Francisco, Hull, 488 bls. rags.
E. J. Keller Co., Inc., Carlier, Antwerp, 142 bls. bagging.
Royal Manfg. Co., Carlier, Antwerp, 44 bls. thread waste.
Salomon Bros. & Co., Eastern Dawn, Antwerp, 56 bls. rags.
E. J. Keller Co., Inc., Eastern Dawn, Antwerp, 44 bls. rags.
Royal Manfg. Co., Eastern Dawn, Antwerp, 16 bls. rags.
Equitable Trust Co., Pres. Harding, Bremen, 38 bls. rags.
S. Silberman & Co., Pres. Harding, Bremen, 11 bls. rags.
A. W. Fenton, Inc., Pres. Harding, Bremen, 67 bls. rags.
E. J. Keller Co., Inc., Pennland, Antwerp, 136 bls. flax waste.
E. J. Keller Co., Inc., Pennland, Antwerp, 74 bls. rags.
E. J. Keller Co., Inc., Caucasier, Antwerp, 91 bls. rags.
E. J. Keller Co., Inc., Bellepline, Mannheim, 19 bls. rags.
E. J. Keller Co., Inc., Chicago, Casa Blanca, 233 bls. rags.
E. J. Keller Co., Inc., Tomalva, Antwerp, 377 bls. rags.
E. J. Keller Co., Inc., McKeesport, Havre, 58 bls. rags.

OLD ROPE

Brown Bros. & Co., Chelma, Marseilles, 53 coils.
Brown Bros. & Co., Belgenland, Antwerp, 53 coils.
Havana Metal Co., Orizaba, Havana, 50 bls.
E. J. Keller Co., Inc., Francisco, Hull, 62 coils.
Brown Bros. & Co., Francisco, Hull, 189 coils.

MANILA ROPE

N. Y. Cordage Co., Belgenland, Antwerp, 55 rolls.

SUNN ROPE

N. Y. Cordage Co., Belgenland, Antwerp, 55 rolls.

WOOD PULP

Castle & Overton, Inc., Flotbek, Konigsberg, 3,524 bls. wood pulp, 507 tons.
Bulkley, Dunton & Co., Flotbek, Konigsberg, 4,720 bls. wood pulp, 944 tons.
H. Hollesen, Inc., Flotbek, Konigsberg, 4,605 bls. wood pulp, 916 tons.
M. Gottesman & Co., Inc., Alberta, Trieste, 2,308 bls. wood pulp.
Johanson, Wales & Sparre, Inc., Idefjord, Sundsvall, 1,375 bls. sulphite, 275 tons.
Bulkley, Dunton & Co., Idefjord, Sundsvall, 1,600 bls. sulphite, 320 tons.
Johanson, Wales & Sparre, Inc., Idefjord, Sundsvall, 1,200 bls. sulphite, 200 tons.
M. Gottesman & Co., Inc., Idefjord, Sundsvall, 150 bls. sulphite, 30 tons.
Bulkley, Dunton & Co., Idefjord, Sundsvall, 1,050 bls. chemical pulp, 210 tons.
Scandinavian Pulp Agency, Inc., Idefjord, Sundsvall, 1,250 bls. sulphate, 250 tons.
Scandinavian Pulp Agency, Inc., Idefjord, Sundsvall, 600 bls. sulphite, 120 tons.
Bulkley, Dunton & Co., Idefjord, Hudiksvall, 1,000 bls. sulphite, 200 tons.
Bulkley, Dunton & Co., Idefjord, Hudiksvall, 500 bls. sulphate, 100 tons.
J. Anderson & Co., Idefjord, Hudiksvall, 800 bls. sulphate, 100 tons.
Pagel, Horton & Co., Inc., Idefjord, Gefle, 10,750 bls. sulphate, 1,168 tons.
Bulkley, Dunton & Co., Idefjord, Gefle, 2,875 bls. wood pulp, 584 tons.
Scandinavian Pulp Agency, Inc., Idefjord, Gefle, 4,870 bls. wood pulp, 840 tons.
Tidewater Papermills Co., Aslaug, Madeleine, 8,429 bls. wood pulp.
Buck, Kiaer & Co., Inc., Stavangerfjord, Oslo, 800 bls. sulphate.
Buck, Kiaer & Co., Inc., Stavangerfjord, Trondhiem, 3,595 bls. sulphite.
M. Gottesman & Co., Inc., Andania, Hamburg, 3,205 bls. wood pulp.
M. Gottesman & Co., Inc., United States, Stockholm, 750 bls. wood pulp.
M. Gottesman & Co., Inc., Oscar II, Stockholm, 750 bls. wood pulp.
Buck, Kiaer & Co., Inc., Westphalia, Hamburg, 800 bls. sulphite.

WOOD PULP BOARDS

Lagerloef Trading Co., Korsholm, Helsingfors, 36 bls.

WOOD PULP WADDING

Bendix Paper Co., Karpfanger, Hamburg, 118 bls.

WOOD FLOUR

Spelden, Whitfield & Co., Rotterdam, Rotterdam, 160 bags.
B. L. Soberski, Stavangerfjord, Frederickstad, 1,500 bags.

PHILADELPHIA IMPORTS

WEEK ENDING OCTOBER 16, 1926

Brown Bros. & Co., London Mariner, London, 128 coils old rope.
The Shalleraus Co., London Mariner, London, 2 cs. stencil paper.

(*Continued on page 60*)

HG&CO

H. G. CRAIG & CO., Inc.

Paper Merchants

(Since 1868)

News
Hanging
Tissues
Box Board
Wood Pulp
Specialties
Mill Supplies

17 East 45th St. NEW YORK, N. Y.

Import Credits

Complete facilities for opening letters of credit in Scandinavia to finance importations of wood-pulp and paper.

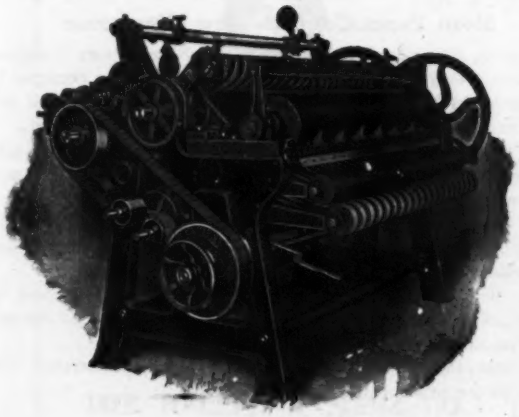
INTERNATIONAL ACCEPTANCE BANK, Inc.

52 Cedar Street, New York

Paul M. Warburg, Chairman — F. Abbot Goodhue, President

Paper Cutters

Single, Duplex and Diagonal



CUTTER KNIVES PATENT TOP SLITTER

HAMBLET MACHINE CO.

LAWRENCE MASS.

CASTLE & OVERTON

—INCORPORATED—

200 FIFTH AVE., NEW YORK

PHILADELPHIA CHICAGO

Branch Offices and Agencies in

ENGLAND SWEDEN GERMANY
BELGIUM SPAIN

Importers and Dealers in

Rags, Pulp, Paper Stock

Sole Agents in the United States for

Waldhof, Tilsit & Ragnit

Bleached and Unbleached Sulphite

Pine Tree Pulp Company

Groundwood

Imports of Paper and Paper Stock

(*Continued from page 58*)

Paper Service Co., London Mariner, London, 1 cs. fancy paper.
Amsinck, Sonne & Co., Inc., Carnia, Alexandria, 161 bls. rags.
D. I. Murphy, Carnia, Oran, 253 bls. rags.
Scandinavian Pulp Agency, Inc., Trolleholm, Skutskar, 750 bls. dry pulp.
Parsons & Whi'temore, Inc., Trolleholm, Svartvik, 300 bls. dry pulp.
Johanson, Wales & Sparre, Inc., Trolleholm, Gothenburg, 500 bls. sulphate.
J. Anderson & Co., Trolleholm, Gothenburg, 450 bls. sulphite.
Scandinavian Pulp Agency, Inc., Trolleholm, Gothenburg, 254 bls. kraft pulp.
Scandinavian Pulp Agency, Inc., Trolleholm, Gothenburg, 127 bls. sulphite.
Scandinavian Pulp Agency, Inc., Trolleholm, Svartvik, 180 bls. sulphite.
Scandinavian Pulp Agency, Inc., Trolleholm, Svartvik, 1,000 bls. sulphate.
M. Gottesman & Co., Inc., Trolleholm, Svartvik, 2,100 bls. sulphite.
Bulkley, Dunton & Co., Trolleholm, Gefle, 500 bls. sulphite.
Pr'ce & Pierce, Ltd., Trolleholm, Gothenburg, 500 bls. wood pulp.
Chase National Bank, Istria, Leghorn, 256 bls. rags.
E. . Bailey & Co., Incemore, Leith, 178 cs. paper.
E. J. Keller Co., Inc., Eastern Dawn, Antwerp, 218 bls. rags.
E. J. Keller Co., Inc., El Lago, Amsterdam, 37 bls. rags.
Castle & Overton, Inc., West Eldara, Rotterdam, 900 bls. wood pulp.
Castle & Overton, Inc., Binnendyk, Germany, 122 bls. rags.
Castle & Overton, Inc., Bellepline, Rotterdam, 85 bls. rags, 33 bls. rope.
Castle & Overton, Inc., ——, Germany, 600 bls. wood pulp.
Castle & Overton, Inc., Collamer, France, 593 bls. rags.
Bulkley, Dunton & Co., Hannover, ——, 405 bls. wood pulp.
Bulkley, Dunton & Co., Boschdyk, ——, 120 bls. wood pulp.
Robert Blank, Bellepline, Rotterdam, 39 bls. rags.
Robert Blank, City of Flint, London, 175 bls. rags.

NEWPORT NEWS IMPORTS

WEEK ENDING OCTOBER 16, 1926

M. Gottesman & Co., Inc., Ferndale, Stockholm, 2,500 bls. wood pulp.

NORFOLK IMPORTS

WEEK ENDING OCTOBER 16, 1926

Castle & Overton, Inc., West Eldara, Rotterdam, 1,620 bls. wood pulp.

NEW ORLEANS IMPORTS

WEEK ENDING OCTOBER 16, 1926

E. J. Keller Co., Inc., West Gambo, Bremen, 77 bls. rags.
E. J. Keller Co., Inc., Leerdam, Antwerp, 52 bls. bagging.
E. J. Keller Co., Inc., K. I. Luckenbach, Kobe, 60 bls. rags.
Castle & Overton, Inc., Gand, Antwerp, 68 bls. rags.

BOSTON IMPORTS

WEEK ENDING OCTOBER 16, 1926

Scandinavian Pulp Agency, Inc., Trolleholm, Skutskar, 900 bls. wood pulp.
Pagel, Horton & Co., Inc., Trolleholm, Skutskar, 2,000 bls. wood pulp.
Johanson, Wales & Sparre, Inc., Trolleholm, Gothenburg, 250 bls. sulphate.
J. Anderson & Co., Trolleholm, Gothenburg, 1,925 bls. sulphite.
The Borregaard Co., Inc., Trolleholm, Gothenburg, 1,875 bls. wood pulp.
Johanson, Wales & Sparre, Inc., Trolleholm, Gothenburg, 299 bls. dry soda pulp.
Nashua Gummed & Coated Paper Co., Trolleholm, Gothenburg, 158 rolls wrapping paper.
Scandinavian Pulp Agency, Inc., Trolleholm, Gothenburg, 5,080 bls. kraft pulp.
Scand'navian Pulp Agency, Inc., Trolleholm, Gothenburg, 254 bls. sulphate.
Scand'navian Pulp Agency, Inc., Trolleholm, Gothenburg, 1,808 bls. sulphite.
Pagel, Horton & Co., Trolleholm, Gefle, 6,000 bls. sulphite.
Scand'navian Pulp Agency, Inc., Trolleholm, Svartvik, 125 bls. sulphite.
Johanson, Wales & Sparre, Inc., Trolleholm, Svartvik, 1,800 bls. sulph'te.
Kalbfleisch Corp., Brazilian Prince, B. Aaires, 334 bags casein.
Bulkley, Dunton & Co., Birte Jensen, ——, 2,750 bls. wood pulp.
Bulkley, Dunton & Co., Folkvard, ——, 3,050 bls. wood pu'p.
Bulkley, Dunton & Co., Boschdyk, ——, 110 bls. rags.
Bulkley, Dunton & Co., Pipestone County, ——, 93 bls. rags.
Castle & Overton, Inc., West Eldara, Rotterdam, 790 bls. wood pulp.
Robert Blank, Savannah, Glasgow, 44 bls. rags.
Robert Blank, Western Ally, Antwerp, 328 bls. rags.

BALTIMORE IMPORTS

WEEK ENDING OCTOBER 16, 1926

Atterbury Bros., Inc., Karpfanger, Hamburg, 480 bls. wood pulp, 80 tons.
Lagerloef Trading Co., Karpfanger, Hamburg, 180 bls. wood pulp boards, 26 tons.
M. Gottesman & Co., Inc., Ferndale, Stockholm, 5,050 bls. wood pulp.
M. Gottesman & Co., Inc., Fernhill, Stockholm, 4,278 bls. wood pulp.
Bulkley, Dunton & Co., Ala, ——, 600 bls. wood pulp.
Castle & Overton, Inc., West Eldara, Rotterdam, 897 bls. wood pulp.
Castle & Overton, Inc., Hannover, Germany, 1,836 bls. wood pulp.
E. J. Keller Co., Inc., Boschdyk, Karlsruhe, 300 bls. wood pulp.
H. Hollesen, Inc., Hannover, Bremen, 260 bls. sulphite, 52 tons.

Lowe Paper Co. Adopts Group Insurance

The Lowe Paper Company has adopted a group insurance program which provides its employees in Ridgefield, N. J., and Saratoga, N. Y., with sick and non-occupational accident protection. The insurance is being underwritten by the Metropolitan Life Insurance Company on a co-operative basis whereby premiums will be paid jointly by the employer and employees.

The plan makes provision for the payment of weekly benefits to any participating employee who is kept away from work on account of sickness from any cause, or injury received while off the job. Determined by the size of his salary, an employee's benefits will continue, during each case of disability, for a maximum of thirteen consecutive weeks.

Included in the general plan are certain service advantages, such as a visiting nurse service and the periodical distribution of pamphlets on a variety of health subjects.

Brotherhood To Form New Locals

ALBANY, N. Y., October, 16, 1926.—Within the next two or three weeks two more local unions will, in all prboability, receive charters from the International Brotherhood of Papermakers, according to word from the headquarters of the union in this city. The new locals will be in the Three Rivers, Quebec, section where the organization has been conducting a membership drive for several months under the direction of Aurthur Huggins, of Holyoke, Mass. The Brotherhood several months ago established a branch office in Three Rivers for the purpose of organizing the paper mill workers in that section and Mr. Huggins, who is a vice president of the Brotherhood, has been in charge since and has done very effective work, according to the International officers.

The issuance of the charter for the two new locals, as well as a number of other important matters, awaits the return to headquarters of President W. R. Smith, who has been away from this city for more than a month visiting local unions throughout the country and attending the Detroit Convention of the American Federation of Labor which concluded its sessions this week. President Smith is expected back at headquarters about October 20.

Sloan Paper Co. Gets New Warehouse

ATLANTA, Ga., October 18, 1926.—The Sloan Paper Company has taken a long lease on the Atlanta warehouse now occupied by the Fairbanks-Morse Company at 479 Whitehall street and will move into its new quarters during the month of November.

The new location is a modern sprinklered building, with spur track into the building proper, containing 35,000 square feet and is of modern construction in every respect.

The increased business which has grown too large for the present location and a desire to be able to give quicker and more efficient service necessitated this move.

The Sloan Paper Company was organized in 1918 and its present officers are James L. Wells, president; W. C. Russell, vice-president; J. A. Krouse, secretary-treasurer.

The company makes a specialty of nationally advertised mill brands to the printing trade.

Bids for Government Paper

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., October 19, 1926.—The Government Printing Office has received the following bids for 20,405 pounds of 19 x 24—77, white M. F. lithograph printing paper: American Writing Paper Company, at 7.3 cents per pound; R. P. Andrews Paper Company, at 6.85 cents; Whitaker Paper Company, at 6.635 cents; Lindemeyr & Harker, at 6.7 cents, and Old Dominion Paper Company, at 6.94 cents.

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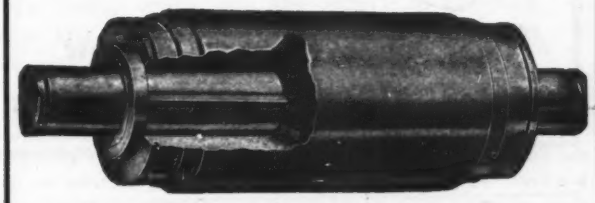

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We make them for the largest and fastest machines.

Cylinder Wires All Sizes

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New York Market Review

OFFICE OF THE PAPER TRADE JOURNAL,
Wednesday, October 20, 1926.

Conditions in the local paper market are quite satisfactory for the time of the year, and the demand for the various grades is excellent. A good volume of inquiries is being received on account of future business and the trade is generally optimistic over the outlook. Prices are holding up to former levels and reports of concessions are infrequent. Sales forces of the leading paper houses continue active and are putting forth their best efforts to make this a record year.

Production of news print continues to expand and is being absorbed freely by the publishers. Accumulations are decidedly limited and prices are steady to firm. According to the News Print Service Bureau, production in the United States during September, 1926, amounted to 136,167 tons and shipments to 135,300 tons. Production in Canada amounted to 161,287 tons and shipments to 162,740 tons, making a total United States and Canadian production of 297,554 tons and shipments of 298,040 tons. The news print mills also made 1,409 tons of hanging paper in September, 227 tons of which were made in Canada. During September 16,525 tons of news print was made in Newfoundland and 1,345 tons in Mexico, so that the total North American production for the month amounted to 315,424 tons. For the nine months of 1926 the Newfoundland output of news print totalled 133,590 tons, an increase of 145 per cent over 1925, and the Mexican output 9,572 tons, an increase of 1 per cent compared with the previous year.

The box board market is in a strong position and so far has not been much affected by the paper box makers strike in New York. Fine papers are in increased demand and quotations are holding up to schedule. Tissues are in improved request at steady prices. Some liveliness appears to be developing in the coarse paper market and wrapping paper is moving into consumption in good volume.

Mechanical Pulp

No great changes transpired in the ground wood market during the past week. Production is proceeding at a good rate and supplies on hand are about sufficient to take care of current demands. Inquiries for future business are being received in moderate volume and future prospects are fairly promising.

Chemical Pulp

Steadiness continues to prevail in the chemical pulp market. Both the imported and the domestic product are in excellent request and quotations are being maintained in a satisfactory manner. It is reported that fifty per cent of the Swedish output of sulphate and kraft pulp for next year has already been disposed of.

Old Rope and Bagging

Encouraged by the easier rates quoted on old rope and bagging, the volume of trading is increasing, and the market is developing a strong undertone. There is a somewhat improved feeling for old manila rope, and the request for all grades of bagging is much better than for some time.

Rags

The domestic rag market was fairly active during the past week. Roofing grades were in excellent request. Mixed rags are arousing greater interest. Cotton rags are in moderate demand. Prices are holding up very well, in most instances. The imported rag market remains rather quiet, although it is predicted that conditions will probably improve before long.

Waste Paper

The lower grades of waste paper are in steady request. Old kraft machine compressed bales are in particularly good demand, and are now offered at from 2.30 to 2.40. Incidentally, the West Coast of Italy Conference has established a commodity rate on old newspapers in bales or bundles, of $11 on passenger ships, and $10 on cargo vessels, per ton of 2,240 pounds, from Atlantic Coast ports.

Twine

Trading in the twine market showed some signs of improvement during the past week and, now that the holiday season is near, business is expected to expand. Influenced by the excellent demand for wrapping paper which is being experienced at the present time, the indications are that prices for twine will shortly begin to climb to former levels.

TO MAKE STRAW BOARD

(*Continued from page 24*)

warehouse at the former city. Fire departments of Green Bay and DePere, Wis., were unable to save the property through their united efforts. This company suffered a loss of $31,000 in a fire while at Menasha in February of 1925.

John Arendt, Sr., Passes Away

John Arendt, Sr., an employee of the Nekoosa-Edwards Paper Company, at its mill at Port Edwards, Wis., died several days ago at the age of 76 years. He had been an employee of the mill for eleven years and was on its pension list.

Aged Mothers Collects Insurance

An interesting incident growing out of the recent death of Edward T. Harmon, Milwaukee, manager for many years of the Biron Pulp and Paper Company, Biron, Wis., is told in the newspapers. He was 74 years of age when he died, but his mother, who is 104 years old, lived long enough to collect insurance of which she was the beneficiary. The policy was issued in 1892 and was for $2,000.

To Hold Cost Meeting at Holyoke

The first meeting of the Connecticut Valley Division of the Cost Association of the Paper Industry, for the 1926-27 season, will be held on Thursday evening, October 28th, at the Hotel Nonotuck, Holyoke, Mass.

The meeting will be preceded by a dinner at 6:30 P.M., and the speaker of the evening will be Seth L. Bush, Manager of Research, at the Crocker-McElwain Company and the Chemical Manufacturing Company. His subject will be "The Possibilities of Standard Costs." In view of the deep interest that this subject has aroused, coupled with Mr. Bush's unique manner of presenting a subject, a good attendance at that meeting will undoubtedly be assured.

Those desiring to attend should notify J. E. Barrett, secretary of the Connecticut Valley Division of the Cost Association of the Paper Industry care of the American Writing Paper Company, Holyoke, Mass. Both non-members and members are invited to send representatives to this meeting.

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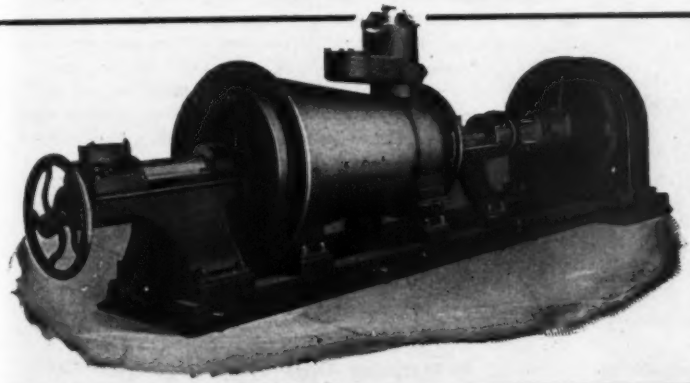

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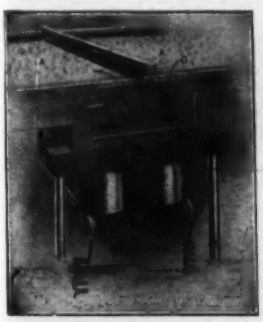

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Electrical Specialists. *Established 1885*

Miscellaneous Markets

Office of THE PAPER TRADE JOURNAL,
Wednesday, October 13, 1926.

Greater activity prevailed in the local chemical market during the week than for some time past. Contract withdrawals have been moving along at an excellent pace and accumulations are being readily absorbed in the spot market. In all sections of the industry quotations remain steady and little change is anticipated when the new contract prices for the forth coming year are decided upon, announcement of which is expected at any time now.

BLANC FIXE.—Demand for blanc fixe is gradually expanding and the tone of the market is steady. The movement against contract during the past week was very encouraging. Quotations on both the pulp and the powder were well maintained at recent advances. The pulp is selling at $60 per ton, in bulk, and the powder is quoted at from 4¼ cents to 4½ cents a pound, in barrels, at works.

BLEACHING POWDER.—Conditions in the bleaching powder market are practically unchanged. The volume of contract shipments moving into consumption during the past week was fairly satisfactory. Prices are unaltered from the recently quoted basis. Bleaching powder is still selling at from $2 to $2.40 per 100 pounds, in large drums, at works, according to quantity and size of container.

CASEIN.—Purchasing in the casein market was mostly along routine lines during the past week. The spot market was rather quiet and most of tthe orders booked were for immediate requirements. Domestic casein is now offered at from 15½ cents to 18 cents a pound, while imported casein is selling at from 16½ cents to 17 cents a yound, all in bags.

CAUSTIC SODA.—Trading in the caustic soda market during the week continued along active lines. The prevailing consumption is reported to be larger than for years and shipments are going forward in excellent style. Caustic soda is quoted at from $3.10 to $3.15 per 100 pounds, in large drums, at works. Spot car lots are selling from $3.20 to $3.25 per 100 pounds.

CHINA CLAY.—While the amount of new business transacted in the china clay market during the past week was rather moderate, a satisfactory contract movement was reported. Prices remain unchanged. Imported china clay is still quoted at from $13 to $22 a ton, in bulk, ship side. Domestic washed clay is selling at from $8 to $9 a ton, at mine, and pulverized at $10 a ton.

CHLORINE.—Consumption of liquid chlorine is expanding and contract withdrawals the past week were exceptionally heavy. Prices are well maintained at previously quoted levels. Chlorine is quoted at 4 cents a pound, in tanks, or multi-unit cars, at works, on contract orders, while the spot price ranges from 4¼ cents to 4¼ cents a pound.

ROSIN.—Attracted by the recent declines in the rosin market a fair demand was experienced during the past week. Most of the orders booked, however, were said to be for immediate requirements. At the naval stores, the grades of rosin mostly used in the paper mills are now offered at from $14.25 to $14.30 per 280 pounds, ex dock, in barrels.

SALT CAKE.—The undertone of the salt cake marekt is exceptionally strong. Shipments against contract are moving into consumption at an excellent pace. Supplies are rather limited and the spot market is very firm. Quotations on salt cake rule from $18 to $20 a ton, in bulk, at works.

SODA ASH.—Steadiness prevails in the soda ash market. Large shipments of this product are going forward on contract and consumption is very heavy. The spot market was rather quiet but prices are holding up very well. Contract quotations, in car lots, at works, per 100 pounds, are as follows: in bulk, $1.25; in bags, $1.38; and in barrels, $1.63.

STARCH.—Production of starch is proceeding at a rate sufficient to take care of current needs. Most of the business transacted in the starch market during the week was routine, but prices were well maintained. Special paper makers' starch is still quoted at $3.42 per 100 pounds, in bags, and at $3.59 per 100 pounds, in barrels.

SULPHATE OF ALUMINA.—The position of the sulphate of alumina market is practically unchanged. Supplies continue to move into consumption against contract in steady volume. Commercial grades of sulphate of alumina are quoted at from $1.40 to $1.45, in bags, at works, in car lots. The iron free is selling at from $2 to $2.05 per 100 pounds, at works.

SULPHUR.—The movement of sulphur into consuming channels during the past week was fairly satisfactory. Trading in the spot market was quiet but prices remain unaltered. Sulphur is still quoted at from $18 to $19 a ton, in bulk, at mine, and from $21 to $23 a ton, ship side.

TALC.—The former schedule of prices is being generally maintained by the talc manufacturers, and this product is in persistent demand. The quotations on domestic talc range from $16 to $18 a ton, at eastern mines, while French talc is offered at from $18 to $22 a ton, ship side.

LOS ANGELES DEMAND HOLDS UP

(*Continued from page 26*)

concern is a student and at these schools Mr. Kelley is giving instruction, both by means of lectures and by demonstrations, which have for their object the instruction of the salesman to the point where he will be not only an expert judge of paper stocks but also will become an equally efficient salesman of those stocks. At first there was some resentment manifested by some of the men because they thought that their compulsory attendance implied some doubt of their efficiency, but after the school got well under way this was entirely dissipated and now every man takes a keen interest in the work Mr. Kelly is undertaking to do.

On the wall back of Mr. Kelly's desk there is a placard which reveals the monthly standing of every salesman in the employ of the company. The individual standing of the man is determined by the amount of gross profit his sales for the month have yielded the company. This is a decidedly novel way of estimating the relative standing. Usually such standing depends upon the volume of sales. But, in this instance, according to Mr. Kelly, the house is interested primarily in what a man makes and not in how much he sells. As a consequence one or two of the men who would lead the score if volume were to be considered, run close to the tail in gross profits. The object of this placard is obviously to stimulate the men to discriminate more clearly than they have been doing in the past between an order taken just because it was an order and an order taken at a fair profit.

J. J. Mahoney Goes With Algonquin Co.

OGDENSBURG, Oct. 18, 1926.—J. J. Mahoney has resigned as superintendent of the sulphite mill of the De Grasse Paper Company at Pyrites to take a similar position with the Algonquin Paper Company of Ogdensburg. He is succeeded at Pyrites by A. B. Copping, who has been acting as his assistant during the last years.

Mr. Mahoney was tendered a farewell banquet by his associates at the Central Hotel in Pyrites. He is a native of Pyrites, where he was born in 1880, and entered the employ of the De Grasse Paper Company at the age of 16 as a laborer. He remained about two years and then went into other business. In 1903 he returned to the De Grasse mill. In 1911 he was appointed superintendent of the sulphite mill and has held this position until the present time.

The new sulphite mill at the Algonquin plant has been in course of construction the last summer. The machinery is now being installed and it is expected operations will be started this month.